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Report of the Chief

Forest Service

1976

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UNITED STATES
DEPARTMENT OF
AGRICULTURE

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U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
Washington, D.C. May 1977

HON. BOB BERGLAND
Secretary of Agriculture

DEAR MR. SECRETARY:

This past year marked the close of the first century of Federal forestry in America. The forestry advances made during these 100 years are considerable, but the future holds even greater promise.

Two events during 1976 presaged the future of Federal forestry. One was passage of the National Forest Management Act, a landmark in the history of the Nation's natural resource legislation. It started out as a solution to timber sale problems caused by the famous Monongahela decision and evolved through the legislative process into the strongest policy direction Congress has ever provided on National Forest management. While providing policy direction, Congress with the new law has endorsed the concept that silvicultural prescriptions should be the province of the professional resource manager, and not a statutory province. However, Congress will monitor the situation closely. It expects the resource manager to practice interdisciplinary planning and fully involve the public in land management decisions. Policy direction was chosen in favor of restrictive legislation. The two key themes of this upcoming period are congressional oversight and public involvement.

The other event of extreme importance in 1976 was the transmittal of the first Resources Planning Act (RPA) documents, the Recommended Program and Assessment, to Congress by President Ford. These documents can set the course for the future management of the renewable resources of the Nation's forests and range lands.

The coming year offers more challenges in the wake of these events. The National Forest Management Act and other new laws must be put into action. Priority attention will be given to activities associated with development of the RPA Program and Assessment due in 1980, on which work has already begun. New opportunities are on the horizon for State and Private Forestry and Research activities, and for young adult employment programs.

There is much yet to be accomplished.

The following pages contain my report of the major activities and accomplishments of the Forest Service, U.S. Department of Agriculture, for the calendar year 1976.

The narrative section is a brief review of the highlights of the year, which we think are significant because of their effect on the future of the Forest Service, the Department, and the Nation. It also serves to supplement the more detailed information on major resource activities contained in the statistical tables which form the heart of the report.

John R. McGuire

JOHN R. McGUIRE
Chief, Forest Service

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RPA Assessment and Program Transmitted

On the second day of March 1976, President Ford sent to Congress two documents, "The Nation's Renewable Resources—An Assessment" and "A Recommended Renewable Resources Program," containing a proposed 44-year program aimed at meeting future needs for goods and services from the Nation's renewable natural resources.

The documents, required by the Forest and Rangeland Renewable Resources Planning Act (RPA) of 1974, will be updated in 1980. Thereafter, the Act requires a new Assessment every 10 years, and a Program revision every 5 years.

The Assessment provides a physical inventory of recreation, wilderness, fish and wildlife, timber, water and grazing, and a description of the overall situation—the problems and opportunities, potential supply and likely demand, a view of prices related to various production levels, and the variable impacts which can be expected. The Assessment covers all the Nation's public and private forest and range lands, and areas adjacent to them, such as mountain tops, deserts, and lakes.

The Assessment concludes that demands for material resources will continue to grow considerably, but the 1.6 billion acres of forest and range land of all ownerships in the United States, with the right investments, have the capacity to meet those demands.

The Program is designed to meet, at reasonable costs, the Nation's potential long-term needs for renewable natural resources. The Act provides for long-term planning involving Forest Service research, cooperative forestry activities, and the National Forest System lands for the production of many renewable resources. Congress has asked for the RPA Assessment and Program to be used in providing long-range direction for natural resources management. It will also be used to relate annual budget deliberations to long-range resources needs to the Nation.

The Recommended Program was shaped in 1 year with the aid of public comment, consideration of environmental and economic factors, and application of professional judgment. Its foundation was the comprehensive Assessment, which was also compiled in that 1 year. The Program for Forest Service activities focuses on three areas: 1) emphasis on dispersed recreation opportunities, along with a moderate allocation of National Forest land to statutory wilderness designation; 2) timber and range activities aimed at cost-effective resources management and investment opportunities on all lands; and 3) acceleration of efforts on behalf of wildlife and fish, land and water stewardship, and human and community development. Estimated costs for the Program (in 1975 dollars) range from $2.5 to $3 billion annually by 2020.

If implemented, the Program would provide, among other things, the following benefits by 2020:

1. An increase in annual recreation use of the National Forests from the present 198 million visitor-days to between 276 and 342 million. (A visitor-day is one visit for 12 hours, or its equivalent.)
2. More than double the National Forest statutory wilderness acreage, from the present 12 million to between 25-30 million.
3. An increase in annual grazing of livestock on National Forest System lands from the present 11.3 million animal-unit-months to between 18 and 20.4 million; and a similar increase in grazing on non-Federal forested ranges, from 57 million to between 106 and 133 million. (An animal-unit-month is the equivalent of forage consumed by one cow in 1 month.) Research would emphasize the development of range management strategies to increase the production of red meat in ways that would reduce the impact of livestock grazing on other uses of range and forest land.
4. An increase in wildlife habitat improvement from 175,000 acres treated in 1975 to a range of from 957,000 to 1,040,000 acres in 1980 and to 2,195,000 to 2,744,000 acres per year in the decade 2011-2020. Wildlife research would emphasize habitat identification and improvement for endangered species.
5. An increase in National Forest timber sale offerings from the current 2.4 billion cubic feet annually to between 3.3 and 4.1 billion cubic feet. Private nonindustrial timber production could be raised from the present 7.5 billion cubic feet to between 14.3 and 17.5 billion.

The Program can be achieved with improved protection and management of the natural resources on private and public forests and range lands.

Efforts are already underway for readying the 1980 Assessment and Program, with increased emphasis on public involvement at every planning stage. As the first step in public involvement, the Forest Service prepared a proposed "Assessment Element Outline," and "Proposed Alternative Forest Service Program Directions and National Goals," for a 90-day public review period. These documents were released for public comment in February 1977 as the initial phase in a continuous process over the next 3 years. By the summer of 1977, public comments on the Assessment Outline and Alternative Program Directions and Goals will be analyzed. Later, in early 1978, a revised "Assessment Element Outline" and a revised "Alternative Forest Service Program Directions and National Goals" will be issued. At that time, progress in developing the documents will be reviewed with the public.

A Draft Assessment and Draft Program, which will be an Environmental Impact Statement, will be issued in

early 1979 with a 90-day public review period. Then, by the summer of 1979, public comments on the Draft Assessment, Draft Program, and Draft Environmental Impact Statement will be analyzed. Later in the summer, they will be incorporated into the final Assessment and Recommended Program as a Final Environmental Impact Statement for formal reviews by the Secretary of Agriculture and the President. Finally, in early 1980, the President will transmit the Assessment and Recommended Program to Congress, along with the Statement of Policy.

While Congress studies the Assessment and Program as blueprints for the future supply and demand of forest resources, the Forest Service must also infold a new dimension into its RPA process. Last September, Congress expanded RPA and, with the National Forest Management Act of 1976, gave more direction to present forest management practices.

The National Forest Management Act of 1976

With the passage of the National Forest Management Act (NFMA) at the end of the 94th Congress, some restrictive provisions of the 1897 Organic Act were eliminated, and the Secretary of Agriculture was provided the authority and flexibility needed to manage all the resources of the National Forests, in harmony with the guidelines of the Multiple-Use Sustained-Yield Act. In essence, Congress provided the Forest Service with policy direction, while allowing it latitude to use the scientific methods necessary to carry out resource management activities properly. The Act places major emphasis on the development of land management plans for each unit of the National Forest System and provides for the establishment of a Committee of Scientists to provide advice and counsel on development of the guidelines and procedures to apply in that planning.

The NFMA amends the Resources Planning Act, and other laws, to improve the management of Forest Service programs and to facilitate public involvement and congressional oversight. Among its highlights, the NFMA: 1) strengthens and refines planning processes by ensuring that both program and land management processes are comprehensive and fully open to the public; 2) requires the Forest Service to identify the suitability of lands for resource management; 3) provides guidelines for land management and resource planning, including guidelines for timber harvest; 4) determines that a relatively even, sustained harvest of timber in perpetuity is the appropriate public policy; 5) authorizes the Secretary to sell timber in accordance with established procedures; 6) validates existing timber sales, provided such sales comply with Forest Service silvicultural plans and sales procedures in effect at the time of sale; 7) increases the 25 percent payments to States for schools and roads by increasing the base on which such payments are calculated; and 8) permits National Forest System lands to be returned to public domain status only by an act of Congress.

Implementation of the NFMA requires a number of major actions by the Forest Service. Some of these are to: 1) revise and expand agency land management planning direction and procedures; 2) revise and expand agency timber sale procedures to incorporate new authority and direction; 3) establish advisory boards to insure information and advise on planning for and management of the National Forest System; and 4) establish procedures to ensure that new requirements for the Renewable Resources Assessment, the Renewable Resource Program, and other reports are met. Implementation efforts are underway. Some tasks have already been completed in accordance with the time frames established in the Act itself. Implementation schedules have been developed for other actions.

The NFMA offers great potential for sound management of the National Forests in the public interest. Whether this potential is realized depends on how well the Forest Service carries out the requirements of the Act. The Forest Service welcomes this opportunity and is confident of meeting the challenge.

BLM Organic Act of 1976

A significant event during 1976, related to the National Forest Management Act and affecting the management of the National Forest System, was the passage of the Federal Land Policy and Management Act, which was enacted mainly to provide organic authorities for the Bureau of Land Management.

The Act includes grazing provisions for National Forests in the 11 contiguous western States: 1) establishes a Range Improvement Fund with receipts from grazing fees; 2) sets grazing permit duration at 10 years; 3) limits Grazing Advisory Boards to representatives of grazing interests and limits scope of boards to advice on expenditures from the Range Improvement Fund and the development of range allotment plans; and 4) places a 1-year moratorium on increases in fees for 1977 and calls for a 1-year study of grazing fees on Federal lands.

While the Act also deals with land exchanges, rights-of-way, withdrawals, and other matters, the most significant portion is its policy declarations.

Wilderness and Wild and Scenic Rivers

The Wilderness and Wild and Scenic Rivers Systems in the National Forests continued to grow in 1976.

Five National Forest additions were made to the National Wilderness Preservation System during the year. The National Forest Wilderness, adding approximately

663,000 acres, were: Alpine Lakes, Wash.; Eagles Nest, Colo.; Fitzpatrick, Wyo.; Kaiser, Calif.; and Hercules-Glades, Mo.

Additionally, 268 miles of Montana's Flathead River were designated as a Wild and Scenic River to be administered by the Forest Service and the National Park Service. Further, the Missouri River Breaks in Montana and the Obed River in Tennessee were designated as components of the Wild and Scenic Rivers System to be administered by the Department of Interior. Also, boundaries were modified for the Feather River in California which is already in the System and administered by the Forest Service.

There are now 92 National Forest wilderness units in 25 States totaling some 12.6 million acres or 87 percent of the total Wilderness system. The Forest Service has 17 Wilderness proposals (3.2 million acres), selected from primitive area reviews and transmitted to Congress, under consideration. The remaining primitive areas will be managed to preserve their wilderness character pending congressional review.

During 1976, Congress designated nine Wilderness study areas for review for suitability as Wilderness. The Forest Service also has another 245 designated Wilderness study areas totaling 10.9 million acres. Altogether, 276 areas (12.5 million acres) will be thoroughly studied for potential Wilderness designation.

In summary, existing and proposed Wilderness and National Forest lands to be studied for Wilderness total 28.3 million acres. The RPA goal is for 25-30 million acres of Wilderness by 2020.

Bicentennial-Forestry Centennial Projects

The 1976 developments provided promise for the future of professional forestry, but what has the past contributed?

Federal forestry began on August 30, 1876, with the appointment of Dr. Franklin B. Hough, a New York physician, as the first Federal forestry agent for the Department of Agriculture. This marked the birth of scientific forestry in the United States. Thus, the forestry centennial and the Nation's Bicentennial coincided.

During the observance of the National Bicentennial and the Federal Forestry Centennial, the many activities that the Forest Service initiated and participated in were highlighted. The Nation's dependency on forests was depicted in an exhibit, "America's Forests," sponsored jointly with the Smithsonian Institution. On display in the Museum of History and Technology, the exhibit illustrated the importance of forestry and forests to the Nation's growth and expansion. The agency also had exhibits at the Smithsonian's Air and Space Museum and in the Department's geodisic dome on modern technology at Cape Kennedy, Fla.

A film, "Roots of the Nation," was produced depicting the influence of forests in the development of America. The documentary received the Golden Eagle Film Award at the annual CINE (Council On Nontheatrical Events) Program and Exhibition. The film is available on loan from State land-grant universities. The contributions of forest resources were also highlighted in a specially-produced record album, "A Forest Is. . .," using original music and lyrics.

Further, a dozen original paintings and texts were prepared by Forest Service artists and were published in AMERICAN FORESTS magazine as a Bicentennial feature. The paintings were also used as exhibits and will be on permanent display in the Cradle of Forestry in North Carolina's Pisgah National Forest. The paintings reflect the past and future roles of forest resources in the United States. A book, "The U.S. Forest Service—A History," describing the development of the Forest Service and the evolution of its role in American forestry, was prepared under a cooperative agreement between the agency and the Forest History Society of Santa Cruz, Calif.

In honor of the 100th birthday of Federal forestry in the United States, the Forest Service presented Secretary of Agriculture Butz a "moon tree" seedling, which he accepted on behalf of all Americans. The tree, a 2-foot loblolly pine, grown by the Forest Service from seeds carried to the moon aboard Apollo 14 in 1971, represented a pledge to the Nation for effective and imaginative Federal forestry management in the next 100 years. Additionally, other moon tree seedlings were planted in cooperation with State foresters in 40 States.

There were scores of other projects, but none had the recreational value of the Bikecentennial. More than 10,000 bicycle enthusiasts across the country traveled some part of a 4,300-mile Trans-America Bicycle Trail from Astoria, Oreg., to Jamestown, Va., crossing more than 25 National Forests. The Forest Service helped to coordinate the project by mapping out bicycle routes and reserving camp sites for participants.

"Smokey Bear is Alive and Well"

Smokey Bear continues to be the national symbol of forest fire prevention. The fire prevention program is a cooperative effort of the Forest Service, the National Association of State Foresters, and the Advertising Council, Inc.

The first living symbol of Smokey Bear, who was brought from New Mexico in June 1950 to serve the Cooperative Forest Fire Prevention campaign, died of old age November 9 in his retirement cage at the

National Zoo in Washington, D.C. The first living symbol had served in his post for 25 years before being retired and replaced by a younger Smokey Bear in May 1975. As required by a Joint Resolution of Congress, the original Smokey's remains were transported for burial to the Smokey Bear Historical State Park at Capitan, N.M., the town near the Lincoln National Forest where he was found.

Since the inception of the Smokey Bear fire prevention campaign in 1945, the Smokey concept is credited with saving this country more than $16 billion in timber that didn't burn, recreation areas that weren't destroyed, and watersheds that weren't blackened by fire. Man-caused fires dropped from 201,511 in 1942 to 103,298 in 1975, remarkable considering the increases in population and forest uses during this time. Meanwhile, forest acreage, accidentally or maliciously burned annually, dropped 90 percent, from 31 million acres to less than 3 million.

The new Smokey, living at the National Zoo, and his stylized campaign cartoon figure continue to work for the prevention of forest fires.

Rural Fire Protection Program

The Forest Service is involved in the fire protection of rural communities. The Rural Community Fire Protection Program, under the Rural Development Act of 1972, completed the second year of a 3-year pilot test period during 1976, by providing assistance to more than 3,700 communities.

The program offers technical and financial assistance to organize, train, and equip fire departments in small rural communities (under 10,000 population). The program is administered by State Foresters and officials of Puerto Rico, Guam, and the Virgin Islands through cooperative agreements with the Forest Service.

During fiscal year 1976, and the transition quarter, State forestry organizations utilized $4.4 million. With these funds, 3,756 communities were assisted; 57 rural fire departments were organized; training was conducted for 8,781 firefighters in wildland fire control and 6,995 firefighters in structural fire control; and $1.7 million of rolling stock, communication, safety, and other related firefighting equipment was purchased.

Biosphere Reserves

The Forest Service is participating in a Biosphere Reserve project, developed to select key sites for environment research and monitoring.

Last year, areas in 12 National Forests were among the first 118 official Biosphere Reserves established in more than 40 countries. The project is a major element of UNESCO's "Man and the Biosphere" (MAB) program to protect representative segments of the world's natural regions as major centers for animal and plant preservation, environmental research, and education. Coordination of the projects in the United States is under the coleadership of the Forest Service and the National Park Service.

The Forest Service Biosphere Reserves are: Hubbard Brook Experimental Forest, N.H.: Coweeta Experimental Forest, N.C., Fraser Experimental Forest, Colo.: Coram Experimental Forest, Mont.; Desert Experimental Range, Utah; Stanislaus Experimental Forest, Calif.; H. J. Andrews Experimental Forest, Oreg.; Three Sisters Wilderness, Oreg.; Cascade Head Experimental Forest and Scenic-Research Area, Oreg.; San Joaquin Experimental Range, Calif.; San Dimas Experimental Forest, Calif.; and Luquillo Experimental Forest, Puerto Rico.

Forest Pest Control Research

The Forest Service conducts an extensive research program to protect forests trees and forest products from insects and diseases. The Forest Service also is participating with cooperators in the Forest Pest Research and Development Program begun by the Department in 1974 to develop technology for suppression of the Douglas fir tussock moth, gypsy moth, and the southern pine beetle. Significant strides were made this past year.

In August, a naturally occurring nucleopolyhedrosis virus was registered by the Environmental Protection Agency for use against the Douglas fir tussock moth. This is the first virus to be registered for the control of a forest insect, and it represents the culmination of 13 years of research and development. An application for the registration of similar virus for the control of the gypsy moth was submitted to the Environmental Protection Agency in December. Another biological agent, *Bacillus thuringiensis,* was also registered for aerial and ground application for control of the Douglas fir tussock moth.

In another area, two chemicals, Orthene^R and Dimilin^R, have been tested and subsequently registered by the Environmental Protection Agency; they now are ready for operational use against the gypsy moth. Orthene^R and Dimilin^R, and carbaryl also have proved to be effective for use against the Douglas fir tussock moth. Applications for registration are expected to be filed with the Environmental Protection Agency this year.

Two other chemicals, Dursban^R (chlorpyrifos) and Reldan^R (chlorpyrifosmethyl) show promise for the direct control of the southern pine beetle under forest conditions and in preventing attacks on individual trees on special-use lands, such as recreation areas, seed orchards, and suburban forests.

Progress continues in (1) using sex pheromones for the detection and evaluation of Douglas fir tussock moth and gypsy moth populations; (2) determining effects of native and introduced parasites and predators on all three insects; (3) identifying factors which affect stand susceptibility to insect attacks; and (4) developing procedures for measuring and predicting impacts.

Research Implementation

The full benefit of research is never realized until it has been put into use.

A national policy for the Forest Service on the implementation of research was established last year. It is accompanied by directions for prompt application of new knowledge and technology on public, as well as private, forest lands.

The application of research findings involves: (1) solving specific user problems and needs; (2) transmitting them through communications media or personal contacts with specific user groups; (3) providing technical assistance in getting field application underway; and (4) providing two-way feedback between users and researchers.

The Surface Environmental and Mining (SEAM) program is representative of this new emphasis on implementation. Through this program, more rapid progress has been made in research and development technology for maintaining or restoring surface and environmental values in mined areas. While there is a need for additional reclamation technologies, emphasis is being placed on the transfer of available knowledge to practitioners, including Federal, State, local, and private land managers.

Mineral Resources

As the Nation's demands for energy and mineral resources continue to grow, the Forest Service expects interest to increase in exploration and development of mineral resources on National Forest System lands, since this land is relatively unexplored when compared to most other lands.

In recent years, many uranium claims have been staked under the General Mining Laws and lease applications for coal, oil, natural gas, and geothermal resources have been received on about 8 million acres of land.

In cooperation with the Department of the Interior, the Forest Service prepares environmental analyses on the possible impacts that may occur from leasing and development of mineral resources. Further, the Forest Service is charged with the protection of surface resources, wherever mineral developments are proposed on National Forest System lands. To strengthen its environmental controls over prospecting and mining on National Forest System lands under the 1872 mining laws, the Forest Service in September 1974 issued a number of specific regulations.

Under these regulations during 1976, miners filed 1,048 operating plans and 1,657 notices of intent to operate. Prospecting and operating plans were approved in 956 cases. Mining industry cooperation has been excellent and the regulations are working well. Only a few cases were reported where significant surface disturbance was caused without an operating plan being filed.

Cooperative Forestry

Loggers and sawmill operators are provided—in cooperation with State forestry organizations—specialized technical assistance to increase the recovery and use of harvested timbers. Computer analysis of field data collected by Federal and State specialists is a key feature in special programs to help loggers and millmen evaluate their efficiency in using more of every tree harvested. The effectiveness of loggers' felling and bucking practices is measured against mill requirements and physical characteristics of the tree being cut. Similarly, sawmilling practices are measured against an optimum lumber recovery factor for the logs and mill type concerned. The improved practices and advanced technology provided by this assistance resulted in an additional 141 million cubic feet of material for wood products in 1976, without an equivalent increase in timber harvest. This additional volume would formerly have been residue, and therefore wasted.

The Forestry Incentives Program (FIP), jointly administered by the Forest Service and the Agricultural Stabilization and Conservation Service, is carried out by State forestry organizations. The program has provided cost-share assistance to private forest landowners to carry out needed tree-planting and timber stand improvement measures for the second full year. During the 17-month period from May 1975 through September 1976, sites on nearly 100,000 acres were prepared and planted for timber production purposes. Timber stand improvement was accomplished on 168,000 acres. The Federal Government's share of treating these 278,000 acres was $8.2 million, while landowners contributed $2.7 million.

A minority contractor program was implemented in the South to increase technical assistance program participation by minority landowners. The effort is conducted on a project basis. A "contractor" visits with minority landowners to explain forestry operations and programs. The effort is expected to make a significant increase in the number of minority landowners assisted in the project counties and serve as a model for possible adoption in other Southern States as well as elsewhere in the United States. In Alabama, one two-county area sampled reports 208 direct contacts resulted in 145 requests. The previous 5-year period averaged four

requests per year from minority landowners in those counties.

Human Resource Programs

The contributions of forests to the Nation are significant, but the backbone of the country is its people. The Forest Service has developed human resource programs to involve the Nation's citizens, young and old, in forestry activities.

Increased funding permitted an enrollment of 6,863 youths in the Forest Service portion of the Youth Conservation Corps (YCC) from June 1, 1975, through September 30, 1976. This work-learning program for 15-18 year olds from all backgrounds is administered by the Forest Service and shared equally with the Department of Interior and the States. Located in all States and territories, the YCC accomplished a variety of conservation work on Forest Service, Department of Interior, and other public lands. Both residential and nonresidential work projects are provided, including trail construction and maintenance, timber stand improvement, and visitor information services. Learning about the environment through working with natural resources is a key aspect of this program.

The Senior Community Service Employment Program for older workers had approximately 1,580 people assigned to National Forests in 24 States from July 1, 1975, through September 30, 1976. Funding for the program was approximately $4.7 million, and the Forest Service provided supplies and materials for work-training projects. These older workers accomplished conservation work valued at more than $5.6 million. They received approximately $4 million in wages and fringe benefits. Under the agreement between the Department of Labor and the Forest Service, the participants were paid an average hourly wage of $2.40. One of the primary benefits of the program is the employment of many skilled retired craftsmen, who are able to continue practicing their trades.

Volunteers also contributed mightily to Forest Service programs. The Volunteer in the National Forests Act of 1972 permits individuals to contribute their services to the improvement of the Nation's natural resources. From July 1975 through September 1976, 11,676 people participated in the Volunteers program and donated 361 man-years of work, with an appraised value of more than $2.3 million.

The Job Corps program, administered under provisions of Title IV of the Comprehensive Employment and Training Act of 1973 (CETA), enrolled approximately 7,300 youths, ranging from 16-21 years old, at Forest Service Job Corps centers from July 1975 through July 1976. In cooperation with the Department of Labor, 17 Job Corps Civilian Conservation Centers on National Forests provided educational and vocational training to these youths. The enrollees who graduated after completing union training programs and found jobs in private industry were paid an average starting wage of $3.41 per hour. Approximately $10 million in resource work was accomplished on National Forest lands.

Another Human Resource Program was the Job Opportunities Program, authorized by the Public Works and Economic Development Act of 1965, as amended in 1974, and administered by the Department of Commerce. Public Law 94-487 further amended the Act, making it a permanent part of the antirecession legislation. Commonly referred to as Title X, the Act grants authority to provide emergency financial assistance to stimulate, maintain, and expand job-creating activities in urban and rural areas suffering from unusually high levels of unemployment. The Forest Service share of the program, more than $33 million, funded 191 projects in 35 States, Guam, and Puerto Rico; 61 of these being grants to States.

Civil Rights Program

Another important aspect of Forest Service human resource activities is the continuing implementation of a civil rights program.

During fiscal year 1976, many changes bolstered Forest Service civil rights efforts. A civil rights staff unit was established at agency headquarters in Washington, D.C., to direct, monitor, evaluate, and coordinate Forest Service civil rights efforts. Field offices were organized to have either separate units for civil rights or individuals directly responsible for civil rights functions. A civil rights task force was established to assess the agency's program in civil rights, i.e., EEO, Title VI, Contracting, etc. Further, a servicewide civil rights conference was held and an affirmative action plan was completed.

There were increases last year in minority participation in each Forest Service activity identified as holding promise for targeted improvement. Improvement occurred in assistance to minority forest landowners, number of minority grazing permittees, percentage of contract dollars to minorities, number of minority recreation visitor days, and the number of minority free use timber permittees. The percentage of minorities and women serving on advisory boards and committees also improved.

Major Legislation Enacted in 1976 Affecting Forest Service Activities

Alpine Lakes Wilderness Area Management Act of 1976 (P.L. 94-357; 90 Stat. 905). This Act establishes an Alpine Lakes Area of some 920,000 acres that includes an Alpine Lakes Wilderness, an intended wilderness area, and a management unit of 527,000 acres in the Mount Baker, Snoqualmie, and Wenatchee National Forests in Washington. This Act requires preparation of a special study of the "Enchantment Area" of the Alpine Lakes Wilderness and completion of a multiple use plan for the Federal lands in the management unit by the end of 1978.

Federal Land Policy and Management Act of 1976 (P.L. 94-579; 90 Stat. 2743). This Act provides organic authority for the management of public lands by the Secretary of the Interior prescribing detailed management direction in such areas as land use planning, land acquisition and disposal, withdrawals, range management, and rights-of-way. The Act also has significant impact on the administration of the National Forest System. It provides common statutory authorities for the Secretaries of Agriculture and the Interior in range management, in issuance of rights-of-way, and in certain other miscellaneous aspects of management of lands by the Forest Service and the Bureau of Land Management.

Land and Water Conservation Fund Act, amendment; National Historic Preservation Fund Establishment (P.L. 94-422; 90 Stat. 1313). Title I of this Act increases the authorization for the Land and Water Conservation Fund from $300 million annually to $600 million for fiscal year 1978, $750 million for fiscal year 1979, and $900 million for fiscal year 1980 and each year through fiscal year 1989. Title II establishes a Historic Preservation Fund from receipts derived from the Outer Continental Shelf lands.

National Forest Management Act (P.L. 94-588; 90 Stat. 2901). This Act amends the Forest and Rangeland Renewable Resources Planning Act of 1974 to provide for new timber management authorities and a coordinated land management planning process that requires full public participation in the development and revision of land management plans. The Act provides comprehensive, new authorities for the management, sale, and harvesting of National Forest timber; provides statutory protection for National Forests created from the public domain; and provides direction for bidding on National Forest timber, road building associated with timber harvesting, reforestation, salvage sales, and receipts from timber sales activities.

Payments In Lieu of Taxes (P.L. 94-567; 90 Stat. 2692). This Act provides for supplemental payments to States and counties in lieu of taxes on certain Federal lands. This Act provides a formula based on population less receipts of the previous year and provides a minimum additional payment of 10 cents per acre and a maximum of 75 cents per acre, subject to certain per capita restrictions.

Major Research Publications 1975-76

Adams, Thomas C., and Richard C. Smith. 1976. Review of the logging residue problem and its reduction through marketing practices. USDA For. Serv., Gen. Tech. Rep. PNW-48, 22 p. Pac. Northwest For. Range Exp. Stn., Portland, OR.

Notes the increasing concern over logging residues in forest land management and describes various administrative and technological means for reducing this residue.

Albini, Frank A. 1976. Estimating wildfire behavior and effects. USDA For. Ser., Gen. Tech. Rep. INT-30, 93 p., Intermt. For. Exp. Stn., Ogden, UT.

This paper presents a brief survey of the research literature on wildlife behavior and effects and assembles formulas and graphic aids based on selected theoretical and empirical models. The uses of mathematical fire behavior models are discussed, and the general capabilities and limitations of currently available models are outlined. Nomographs have been developed for estimating rate of spread, reaction intensity, and flame length for a variety of "typical" fuel complexes under widely variable conditions.

Alexander, Robert R. 1975. Partial cutting in old-growth lodgepole pine. USDA For. Ser., Res. Pap. RM-136, 17 p. Rocky Mt. For. Range Exp. Stn., Ft. Collins, CO.

New guidelines have been developed that provide managers of old-growth lodgepole pine stands in the central Rocky Mountains with alternatives to clearcutting. The guidelines provide cutting options that permit the maintenance of forest cover in recreation areas, travel influence zones, and scenic view areas.

Biltonen, Frank E., William A. Hillstrom, Helmuth M. Steinhilb, and Richard M. Goodman. 1976. Mechanized thinning of northern hardwood pole stands: methods and economics. USDA For. Serv., Res. Pap. NC-137, 17 p., illus. North Cent. For. Exp. Stn., St. Paul, MN.

Describes a study of various thinning methods used on hardwood pole stands. These methods include using mechanized felling, skidding, and field chipping,

as well as chain-saw felling. Cost analyses show that a profit can be made although it is less than can be made with clearcutting.

Brinkman, Kenneth A., and E. I. Roe. 1975. Quaking aspen: silvics and management in the Lake States. U.S. Dep. Agric., Agric. Handb. 486, 52 p.

The Handbook summarizes information about quaking aspen, a valued forest component throughout the Lake States and the most widely distributed tree species in North America. The Handbook provides land managers with a single-source document containing silvical characteristics, information about pests, yields, reproduction, and alternative management techniques.

Cannon, William N., Jr., and David P. Worley. 1976. Dutch elm disease control: performance and costs. USDA For. Serv., Res. Pap. NE-345, 7 p., illus. Northeast. For. Exp. Stn., Upper Darby, PA.

Municipal programs to suppress Dutch elm disease have had highly variable results. Performance as measured by tree mortality was unrelated to particular control strategies. Costs for control programs were 37 to 76 percent less than costs of removing large numbers of elms where there were no control programs in the 15-year timespan of the study. Only those municipalities that conducted a high-performance program could be expected to retain 75 percent of their elms for more than 20 to 25 years. Communities that experienced the fewest elm losses had a well-founded program, applied it conscientiously, and sustained their efforts over the years.

Committee Report 1976. Feasibility of utilizing forest residues for energy and chemicals. Report to NSF and FEA, NSF-RA-760013.

The feasibility of utilizing forest residues for direct burning and as chemical feedstock is discussed. The use of forest residues for direct burning is shown as feasible in some segments of the forest industry. Residue wood shows some promise as a renewable feedstock for multiproduct chemical processes, but more detailed indepth economic analyses will be necessary to verify this potential.

Dutrow, George F., and Joseph R. Saucier. 1976. Economics of short rotation sycamore. USDA For. Serv., Res. Pap. SO-114, 16 p. South. For. Exp. Stn., New Orleans, LA.

Combines well-documented yields for different cutting cycles on two site categories, with cost and revenue estimates for seeking a relevant financial guide.

Gratkowski, H. 1975. Silvicultural use of herbicides in Pacific Northwest forests. USDA For. Serv., Gen. Tech. Rep. PNW-37, 44 p. Pac. Northwest For. Range Exp. Stn., Portland, OR.

A working manual summarizing 20 years of research on the use of herbicides in the practice of forestry. It includes information on herbicide selection, concentrations, carriers, spray volumes, and seasons for application. The manual provides foresters with information that will better enable them to key herbicide treatments to silvicultural objectives attuned to variations in plant communities and the environment.

Green, Alan W. 1976. Assessing the timber resource situation on a working circle using inventory data. USDA For. Serv., Res. Pap. INT-183, 43 p. Intermt. For. Range Exp. Stn., Ogden, UT.

Realistic projections of timber supplies require knowledge about the land's wood-growing capacity, constraints on the use of forest land for timber production, and the extent and condition of the existing timber resource. Timber inventory data can be used to estimate potential available output and to assess the existing resource in terms of general management needs and of its performance in producing usable wood.

Hartman, David A., William A. Atkinson, Ben S. Bryant, and Richard O. Woodfin. 1976. Conversion factors for the Pacific Northwest forest industry. Wash. Univ. Coll. For. Resour., 112 p. Seattle, WA.

This book replaces a similar document that has been in popular demand for almost 20 years. In this publication, a joint effort of the Forest Service and the College of Forest Resources, University of Washington, the authors have assembled conversion and recovery factors using documented data that has been verified by present forest industry practices. In the manuscript reviewing process, the authors conducted two workshops attended by knowledgeable persons in industry and government. The present book, therefore, represents the aid of many contributors and reviewers. This book will be useful to forest products specialists, foresters, engineers, and executives who are concerned with planning and management of timberlands and manufacturing operations. It is a useful reference and a means of enhancing an understanding of the relationship between forest growth and forest products.

Haynes, Richard W. 1976. Price impacts of log export restrictions under alternative assumptions. USDA For.

Serv., Res. Pap. PNW-212, 25 p. Pac. Northwest For. Range Exp. Stn., Portland, OR.

Presents the impact on softwood lumber and stumpage prices of a ban on log exports under alternative assumptions about the market for western softwood lumber.

Jorgensen, Jacques R., Carol G. Wells, and Louis J. Metz. 1975. The nutrient cycle: key to continuous forest production. J. For. 73(7):400-403.

Research in nutrient cycling and the production of loblolly pine biomass in the Southeast points out a potential hazard to continuous forest productivity. Forest managers are advised to consider the increased drain on site nutrients imposed by trends to harvest increasing amounts of biomass grown on shortened rotations.

Koerber, Thomas W., compiler. 1976. Lindane in forestry. . .a continuing controversy. USDA For. Serv., Gen. Tech. Rep. PSW-14, 30 p., illus. Pac. Southwest For. Range Exp. Stn., Berkeley, CA.

Use of the chlorinated hydrocarbon insecticide lindane to control bark beetles is controversial. Differences of opinion persist, even among knowledgeable entomologists on whether use is justified in view of potentially harmful side effects. Effectiveness of lindane treatments, as employed in preventing tree mortality from bark beetles, is also in question. In seven papers, relevant information from many sources is reviewed by investigators who hold divergent views. The papers present data on the biological characteristics of lindane, its persistence in the environment and effects on both targets and nontarget organisms. The place of lindane in a spectrum of forest management alternatives is presented together with arguments both for and against its continued use.

Marquis, David A., Ted J. Grisez, John C. Bjorkbom, and Benjamin A. Roach. 1975. Interim guide to regeneration of Allegheny hardwoods. USDA For. Ser., Gen. Tech. Rep. NE-19, 14 p. Northeast. For. Exp. Stn., Upper Darby, PA.

Guidelines have been provided for evaluating the regeneration potential of cherry-maple stands on the Allegheny Plateau of Pennsylvania and New York. The guidelines enable managers to prescribe the most appropriate method of regeneration cutting: individual tree selection where tolerant species are not objectionable and recreational and esthetic values are high, shelterwood in areas with inadequate reproduction, and clearcutting where advance production is abundant.

Maxwell, Wayne G., and Franklin R. Ward. 1976. Photo series for quantifying forest residues in the: Coastal Douglas-fir-hemlock type, coastal Douglas-fir-hardwood type. USDA For. Serv., Gen. Tech. Rep. PNW-51, 103 p., Pac. Northwest For. Range Exp. Stn., Portland, OR.

Maxwell, Wayne G, and Franklin R. Ward. 1976. Ponderosa pine type, ponderosa pine and associated species type, lodgepole pine type. USDA For. Serv., Gen. Tech. Rep. PNW-52, 73 p., Pac. Northwest For. Range Exp. Stn., Portland, OR.

Both these publications discuss timber harvesting, silvicultural practices, and land clearing operations that produce forest residues on millions of acres in the western United States annually. Although some residues are beneficial, excessive residues adversely affect the forest environment in many ways. To reduce residues to a level considered desirable estimates are needed on quantities that now exist or will be created by some activity. These publications present arrays of photographs, with each array showing different residue loading levels generated from like timber types and cutting practices. Information with each photo includes measured weights, volumes, and other residue data, and information about the timber stand and harvest or thinning actions, and fuel ratings. These photo series provide a fast and easy-to-use means for quantifying and describing existing and expected residues. They also serve as a communication link between users.

Mignery, Arnold L. 1975. Direct-seeding oaks on the Cumberland Plateau in Tennessee. USDA For. Serv., Res. Pap. SO-107, 11 p. South. For. Exp. Stn., New Orleans, LA.

Regeneration specialists have been provided with the requirement for direct seeding high-valued white, black, and northern oaks on the Cumberland Plateau of Tennessee. Successful establishment of seedlings depends on providing adequate protection against depredation of acorns and on controlling vegetation competing with the newly germinated plants for moisture, nutrients, and light.

Perla, Ronald I., and M. Martinelli, Jr., 1976. Avalanche handbook. U.S. Dep. Agric., Agric. Handb. 489, 238 p., illus. Rocky Mt. For. Range Exp. Stn., Fort Collins, CO.

Thoroughly explains conditions and causes for snow avalanche occurrence and how disasters can be avoided. This well-illustrated handbook provides information needed by ski patrollers, snow rangers, mountaineers, and rescue teams. It is useful to all who may encounter avalanches in work or recreation and suitable for persons generally interested in mountain weather, snow, and avalanche control.

Powers, Robert F., Kani Isik, and Paul J. Zinke. 1975. Adding phosphorus to forest soils: storage capacity and

possible risks. Bull. Environ. Contam. Toxicol. 14(3):257-264.

A method has been devised for determining the amount of phosphorus that soils in California can safely absorb before the phosphorus begins to move rapidly through them. Some soils can retain as much as five times more phosphorus than others. The method provides a means for identifying forest soils where fertilization or sewage waste disposal treatments may damage the quality of downstream water.

Roby, George A., and Lisle R. Green. 1976. Mechanical methods of chaparral modification. U.S. Dep. Agric., Agric. Handb. 487, 46 p. illus. Washington, DC.

Chaparral modification is undertaken for a variety of land management purposes. This handbook describes techniques and equipment for use by land managers; provides information on operations; reports on production rates and site costs; and explains the advantages and limitations of equipment used for brush crushing, compacting, chopping, shredding, and grass seeding. Tools for hand methods of clearing and stump sprout control are also described.

Santamour, Frank S., Jr., Henry D. Gerhold, and Silas Little. 1976. Better trees for metropolitan landscapes. USDA For. Serv., Gen. Tech. Rep. NE-22, 256 p. Northeast. For. Exp. Stn., Upper Darby, PA.

A report on the symposium held November 4-6, 1975, at the National Aboretum, Washington, D.C., containing 29 papers on selection of trees for metropolitan environments; selection strategies of planners, growers, and breeders; and putting new cultivars into use.

Schwarz, Charles F., Edward C. Thor, and Gary H. Elsner. 1976. Wildland planning glossary. USDA For. Serv., Gen. Tech. Rep. PSW-13, 252 p. Pac. Southwest For. Range Exp. Stn., Berkeley, CA.

More than 1,400 terms useful in wildland and related resource planning are defined. The purpose of the work is to facilitate communication between professionals, not to provide them with exhaustive vocabularies of each other's specialties. Definitions are drawn from many sources, including public laws and government manuals, but are not intended to establish legally binding definitions. A list of terms and a list of sources are included.

Smith, Dixie R., Technical Coordinator. 1975. Proceedings of the symposium on management of forest and range habitat for nongame birds. USDA For. Ser., Gen. Tech. Rep. WO-1, 343 p., Washington, DC.

A symposium-initiated dialog between resource managers and avian ecologists. Included are 28 papers presented in 6 sessions—general; birds and their habitat; management of deciduous forest habitats; management of range habitats; management of coniferous forest habitats; and management of nongame birds in current policies and decisionmaking.

Snow, G. A., R. J. Dinus, and C. H. Walkinshaw. 1976. Increase in virulence of Cronartium fusiforme on resistant slash pine. Phytopathology 66:3.

Breeding pines with genetic resistance to fusiform rust is a promising way to control the disease, but the prospect that the rust fungus will specialize to overcome that resistance has long been recognized. Recent investigations have demonstrated that rust fungus can undergo alteration and cause infection on a previously resistant host. This information is of value to tree breeders who must develop a clearer appreciation of the genetic interaction between southern pines and the fusiform rust fungus in order to counter this capacity for increased virulence. Only by developing a broad-based resistance to infection can future losses to this disease be kept at a minimum.

Springfield, H. W. 1976. Characteristics and management of Southwestern pinyon-juniper ranges: the status of our knowledge. USDA For. Serv., Res. Pap. RM-160, 32 p., Rocky Mt. For Range Exp. Stn., Fort Collins, CO.

Describes general characteristics, overgrazing, and tree density problems of the pinyon-juniper type covering about 30 million acres in Arizona and New Mexico. Gives information to modify and manage the type in order to provide a mixture of products, including forage for livestock, food and habitat for wild animals, firewood, fence posts, pinyon nuts, and Christmas trees.

U.S. Department of Agriculture, Forest Service. 1975. Municipal watershed management symposium proceeding. USDA For. Serv., Gen. Tech. Rep. NE-13, 196 p., illus. Northeast. For. Exp. Stn., Upper Darby, PA.

A report on a symposium held at Pennsylvania State University and University of New Hampshire containing 24 papers presented at the meetings. Significant research and management information was presented that would be useful to municipal watershed administrators in formulating land-management policies.

U.S. Department of Agriculture, Forest Service. 1976. The Nation's renewable resources—an assessment, 1975. 345 p. U.S. Dep. Agric. For. Serv., Washington, DC.

A renewable resource assessment prepared in response to provisions of the Forest and Rangeland Renewable Resources Planning Act of 1974.

Receipts and Expenditures (Fiscal Year 1976)

Receipts from the sale or use of National Forest System resources amounted to $454,662,678 in fiscal year 1976. These direct cash receipts came from the following major sources:

Timber	$418,563,740
Grazing	10,909,173
Land Uses	1,480,494
Recreation	6,464,888
Power	329,465
Mineral Leases and Permits	12,051,501
Admission and User Fees	4,863,417
Total	454,662,678

This total includes $11,390,029 received from National Forest revested Oregon and California railroad grant lands and $5,029,927 received from National Grasslands and Land Utilization areas administered under Title III of the Farm Tenant Act. For the transition quarter (July 1-Sept. 30), the total for all listed was $205,000,308.

Other amounts received from the National Forest System, but not listed above, included: $15,155,659 contributed by cooperators and timber purchasers for cooperative work on National Forest programs; $53,797,549 set aside for timber sale area improvements; $28,906,310 set aside for brush disposal; $2,684,520 from miscellaneous receipts; $51,201 for restoration of forest lands and improvements; and $6,180 from the sale of 618 Federal recreation area entrance permits. Thus, the total of direct receipts and deposits for fiscal year 1976 was $555,264,097. For the transition quarter, it was $238,853,994.

Several other values can also be related to National Forest System operations for the fiscal year. Timber purchasers built roads valued at $112,657,424, incident to timber harvest ($33,027,124 in transition quarter.) Other Federal agencies collected $79,473,943 for mineral leases, permits, and power licenses on National Forest land of public domain origin, and for the transition quarter $33,860,914.

With these additions, cash receipts and income for the fiscal year totaled $747,395,464, and for the transition quarter $305,742,032.

Operating expenses for National Forest System programs, including those for National Grasslands and Land Utilization Projects, amounted to $691,502,542 for fiscal year 1976 and $252,065,611 for the transition quarter. With the addition of an estimated $108,581,530 for depreciation expense of roads, trails, equipment, and other improvements the fiscal year total is $800,084,072. For the transition quarter, estimated depreciation was $27,670,102 for a total of $279,735,713.

The result of these calculations for the National Forest System is that operating expenditures and other charges exceeded receipts and all other fiscal year 1976 earnings by $52,688,608. In the transition quarter, the receipts exceeded operating expenditures and other charges by $26,006,319.

Fiscal year receipts inceased $119,312,450 over fiscal year 1975. Expenditures for fighting forest fires exceeded the 5-year average by $64,950,946 in fiscal year 1976 and by $20,684,248 for the equivalent period average in the transition quarter.

Fiscal Year expenditures for Forest Service research and cooperative activities were: $52,718,377 (transition quarter $15,530,778) for cooperative State and Private Forestry programs, $80,752,278 (transition quarter $25,896,448) for forest research programs, and $123,575,131 (transition quarter $30,125,901) for other government agency and nongovernment cooperative programs.

Receipts and incomes for these programs totaled $16,636,646 in fiscal year 1976 and $7,835,695 in the transition quarter. Included in these amounts were $229,827 for the fiscal year and $37,404 for the transition quarter in royalties from the Smokey Bear and Woodsy Owl licensee programs, and $26,663 in the fiscal year and $6,971 for the transition quarter from the sale of surplus properties which are available for appropriation by Congress to the Land and Water Conservation Fund.

The Forest Service pays one-quarter of National Forest System net receipts to States for support of schools and roads in counties containing National Forest lands. This payment, based on fiscal year 1976 receipts, was $109,523,445. Based on the 1976 transition quarter receipts, it was an additional $48,946,378. For fiscal year 1976, Arizona and New Mexico school funds received $146,747,000 and Minnesota received $259,038. For the transition quarter, Arizona and New Mexico received $38,200 and Minnesota $64,760.

By law, the Forest Service retains 10 percent of receipts from National Forest resources for development of National Forest roads and trails, except on revested Oregon and California railroad grant lands. The amount retained in this fund was $43,809,598 for fiscal year 1976 and $19,578,435 for the transition quarter.

Counties containing National Grassland and Land Utilization areas received $985,510 for schools and roads (based on 1975 calendar year receipts of $3,942,038). As required by law, this payment is made on the basis of calendar year receipts.

National Forest and Other Lands Administered by the Forest Service

As of September 30, 1976

(In Acres)

State and Commonwealth	National Forests, Purchase Units, Research Areas and Other Areas	National Grasslands	Land Utilization Projects	Total
Alabama	639,611	-	443	640,054
Alaska	20,710,329	-	-	20,710,329
Arizona	11,271,164	-	-	11,271,164
Arkansas	2,464,784	-	-	2,464,784
California	20,246,168	-	19,222	20,265,390
Colorado	13,772,540	612,155	560	14,385,255
Connecticut (Forest Insect and Disease Lab)	10	-	-	10
Florida	1,082,252	-	-	1,082,252
Georgia	846,860	-	9,340	856,200
Idaho	20,323,113	47,659	-	20,370,772
Illinois	255,984	-	-	255,984
Indiana	180,077	-	324	180,401
Kansas	206	107,700	-	107,906
Kentucky	655,440	-	-	655,440
Louisiana	595,591	-	-	595,591
Maine	51,018	-	465	51,483
Michigan	2,700,562	-	999	2,701,561
Minnesota	2,785,107	-	-	2,785,107
Mississippi	1,138,322	-	-	1,138,322
Missouri	1,440,717	-	13,104	1,453,821
Montana	16,744,501	-	-	16,744,501
Nebraska	257,165	94,344	-	351,509
Nevada	5,112,685	-	-	5,112,685
New Hampshire	683,944	-	-	683,944
New Mexico	9,108,029	136,412	240	9,244,681
New York	-	-	13,232	13,232
North Carolina	1,146,136	-	-	1,146,136
North Dakota	796	1,104,789	-	1,105,585
Ohio	166,557	-	-	166,557
Oklahoma	244,640	46,360	-	291,000
Oregon	15,475,999	106,138	856	15,582,993
Pennsylvania	506,490	-	-	506,490
Puerto Rico	27,846	-	-	27,846
South Carolina	607,240	-	-	607,240
South Dakota	1,132,161	863,059	-	1,995,220
Tennessee	620,080	-	-	620,080
Texas	663,828	117,525	-	781,353
Utah	8,045,666	-	-	8,045,666
Vermont	261,591	-	-	261,591
Virginia	1,602,804	-	-	1,602,804
Virgin Islands (Estate Thomas Experimental Forest)	147	-	-	147
Washington	9,071,192	-	725	9,071,917
West Virginia	960,802	-	-	960,802
Wisconsin	1,492,525	-	160	1,492,685
Wyoming	8,678,905	572,359	-	9,251,264
Nationwide	183,771,584	3,808,500	59,670	187,639,754

Construction, Reconstruction, and Maintenance of National Forest (forest development) Roads, Bridges, and Trails

Fiscal Year 1976

State or Commonwealth	Roads & Bridges						Trails		
	Construction & Reconstruction From Appropriated Funds			Construction & Reconstruction By Timber Purchasers			Construction & Reconstruction Appropriated	Existing	Total Obligations From Forest Road & Trail Funds
	Road Miles	Bridges Number	Dollars	Road Miles	Bridges Number	Dollars	Miles	Miles	Dollars
Alabama	6.0	1	794,000	5.5	0	72,500	3.0	19.5	2,143
Alaska	0	0	5,594,000	161.0	115	10,676,000	0	564.8	246,491
Arizona	15.0	0	3,546,000	65.0	0	1,342,700	0	2,789.4	194,192
Arkansas	2.7	6	2,709,000	175.8	0	2,148,800	18.0	98.2	30,329
California	10.9	10	34,989,000	1,744.2	16	33,259,000	125.1	13,507.7	3,106,352
Colorado	12.0	4	6,509,000	126.0	0	775,000	31.9	8,275.2	509,129
Florida	2.6	1	761,000	13.8	0	69,500	0	232.4	21,434
Georgia	2.4	0	1,043,000	50.9	0	340,600	13.9	313.0	27,000
Idaho	40.6	12	17,444,000	947.2	8	12,228,800	23.1	17,648.2	643,895
Illinois	3.0	0	478,000	5.0	0	16,000	0	52.9	440
Indiana	0	0	68,000	0	0	0	0	16.1	35
Kentucky	6.0	0	2,363,000	1.4	0	5,400	6.2	144.5	10,717
Louisiana	0	3	810,000	61.2	0	1,268,800	0	11.6	0
Maine	0	0	43,000	3.0	0	30,000	0	79.5	5,340
Michigan	0	1	1,708,000	88.0	0	339,000	0	983.5	29,861
Minnesota	12.0	2	2,098,000	44.0	0	270,000	0	675.0	76,067
Mississippi	0	7	1,013,000	115.4	1	938,100	0	66.7	10,717
Missouri	0	0	523,000	41.0	0	131,000	0	107.7	9,811
Montana	40.9	7	15,782,000	843.3	8	8,585,800	17.1	13,579.4	1,028,112
Nebraska	0	0	95,000	0	0	0	5.0	24.7	36
Nevada	0	0	915,000	0	0	0	0	1,907.9	85,736
New Hampshire	0	1	713,000	11.0	4	350,000	21.0	1,039.6	219,150
New Mexico	27.0	0	3,377,000	112.0	0	771,200	10.5	2,742.8	186,904
New York	0	0	2,000	0	0	0	0	25.2	1,736
North Carolina	12.1	3	1,337,000	22.0	0	117,000	4.0	1,295.4	42,868
North Dakota	0	0	16,000	0	0	0	0	0	0
Ohio	0	0	68,000	0	0	0	0	87.8	0
Oklahoma	0	0	168,000	19.0	0	228,100	0	51.6	1,822
Oregon	43.0	17	27,649,000	2,575.0	174	65,226,000	32.5	43.9	1,083,145
Pennsylvania	0	2	895,000	28.0	0	180,000	0	169.7	7,999
Puerto Rico	0	0	31,000	0	0	0	0	2.2	21,434
South Carolina	14.2	7	921,000	36.7	1	440,800	27.0	237.3	17,147
South Dakota	0	2	1,232,000	56.0	0	718,000	0	29.5	2,964
Tennessee	3.5	0	820,000	41.7	0	102,400	8.1	559.1	32,151
Texas	0	6	991,000	70.1	0	1,105,300	0	157.5	4,289
Utah	0	5	3,331,000	86.2	0	636,500	6.5	6,379.6	297,932
Vermont	1.0	0	469,000	7.0	0	172,000	24.7	215.4	188,129
Virginia	0	0	1,125,000	16.1	0	17,900	13.2	1,600.0	101,811
Washington	5.0	7	15,001,000	851.0	321	20,448,000	24.6	6,678.1	1,354,354
West Virginia	0	0	1,390,000	0	0	0	5.6	687.2	49,425
Wisconsin	9.0	1	1,677,000	34.0	0	179,000	.5	767.4	41,434
Wyoming	20.0	1	3,619,000	152.0	0	938,000	.4	5,803.8	341,728
District of Columbia	0	0	3,509,000	0	0	0	0	0	0
Total	288.9	106	167,626,000	13,101.2	648	164,127,200	421.9	96,649.9	10,049,000
					Transition Quarter				
Total	98.3	18	59,424,000	1,559.1	182	30,779,600	258.1	96,649.9	4,520,000

Part I - Use of Developed Recreation

(Thousands of Visitor-Days

State Name	Observation Sites	Play, Park, Sports	Boating Sites	Swimming Sites	Camp-grounds	Picnic grounds
Alabama	-	-	3.7	60.2	158.9	11.1
Alaska	9.7	6.8	1.6	-	182.1	51.8
Arizona	53.1	61.7	202.5	88.2	2,967.2	750.0
Arkansas	24.8	-	6.9	97.1	392.3	57.4
California	66.6	23.5	284.9	249.7	9,227.7	475.2
Colorado	96.6	1.6	45.2	-	3,165.1	517.9
Florida	-	-	46.1	103.1	627.6	263.5
Georgia	15.0	-	13.9	15.3	328.1	53.4
Idaho	23.7	1.2	124.2	26.0	1,561.9	146.4
Illinois	38.6	-	8.2	21.8	111.1	51.1
Indiana	.3	-	21.5	25.1	156.9	37.7
Kansas	-	-	-	-	-	6.9
Kentucky	179.0	.2	38.6	9.0	272.5	74.9
Louisiana	2.3	-	5.2	41.1	121.8	22.5
Maine	2.3	-	-	-	16.5	2.0
Michigan	26.9	6.5	135.2	93.2	702.8	115.9
Minnesota	1.5	-	73.8	35.7	502.0	43.1
Mississippi	-	-	7.1	60.1	70.9	20.5
Missouri	2.4	.7	22.4	8.0	279.9	73.5
Montana	14.2	-	89.3	28.9	1,231.4	149.7
Nebraska	1.3	-	-	1.5	16.1	16.8
Nevada	1.8	23.3	-	25.7	444.4	56.7
New Hampshire	108.9	-	11.5	17.2	606.3	70.6
New Mexico	44.0	12.0	8.6	-	1,043.9	264.0
New York	-	-	-	-	8.7	2.4
North Carolina	49.1	-	23.3	62.5	468.9	215.0
North Dakota	-	-	-	-	10.6	.7
Ohio	-	-	.4	4.4	25.7	15.3
Oklahoma	23.9	-	6.2	5.8	15.3	22.3
Oregon	169.6	3.2	300.3	47.7	3,726.3	451.5
Pennsylvania	47.9	.1	25.7	32.1	456.7	15.9
South Carolina	-	8.6	10.5	12.2	102.9	52.1
South Dakota	13.5	1.4	21.2	20.7	356.8	46.2
Tennessee	56.5	2.9	13.0	64.7	361.7	160.8
Texas	.3	-	27.8	27.6	222.9	41.9
Utah	28.5	3.9	73.6	1.5	2,301.9	310.7
Vermont	11.6	1.6	-	9.7	70.7	19.7
Virginia	11.6	2.3	5.2	60.9	381.9	84.7
Washington	40.7	-	379.6	12.5	2,585.8	123.9
West Virginia	13.3	-	5.6	29.6	398.8	37.0
Wisconsin	-	-	32.2	50.0	419.0	16.1
Wyoming	19.3	-	48.8	11.7	1,032.9	70.0
Puerto Rico	18.7	-	-	-	-	100.0
Service-Wide	1,217.5	161.5	2,123.8	1,460.5	37,134.9	5,118.8

[1]Recreation use of National Forest land and water which aggregates 12 person-hours, may entail one either continuous or intermittent.

Summary of Recreation Use

Sites, Calendar Year 1976

of Recreation Use)[1]

Hotel, Lodge, Resorts	Organi-zation Sites	Other Concession Sites	Recreation Residence Sites	Winter Sports Sites	Document Sites	Inter-pretive Sites	Total Use	Percent of Total
-	-	-	-	-	-	8.3	242.2	.3
17.3	27.0	-	36.7	76.7	-	212.9	622.6	.9
342.9	347.3	76.2	425.1	42.7	1.0	61.7	5,419.6	7.4
11.1	32.7	-	8.5	-	-	39.2	670.0	.9
1,267.0	2,601.6	136.4	3,621.6	1,553.0	1.2	196.5	19,704.9	26.9
227.2	221.7	178.8	263.6	1,695.0	18.8	49.8	6,481.3	8.9
-	80.0	-	135.7	-	3.0	16.3	1,275.3	1.7
-	28.8	-	16.5	-	-	12.9	483.9	.7
155.7	210.4	8.7	285.4	334.5	12.7	49.2	2,440.0	4.0
-	-	-	-	-	.2	6.9	237.9	.3
-	-	-	-	-	-	4.7	246.2	.3
-	-	-	-	-	-	-	6.9	-
-	11.6	-	11.0	-	.3	1.4	598.5	.8
-	-	-	26.0	-	-	-	218.9	.3
-	1.2	-	-	-	-	-	22.0	-
2.5	35.7	2.1	88.5	121.4	3.6	13.1	1,347.4	1.8
115.4	206.3	2.7	145.3	39.7	.1	1.6	1,167.2	1.6
-	44.6	-	-	-	-	1.2	204.4	.3
-	23.8	-	-	-	.3	1.6	412.6	.6
77.7	121.6	1.4	255.3	241.3	-	99.1	2,309.9	3.2
-	20.0	-	-	-	.2	-	55.9	.1
-	55.2	-	28.0	47.8	-	23.0	705.9	1.0
75.2	3.2	-	-	179.1	-	11.4	1,081.4	1.5
4.5	67.6	41.7	91.8	138.7	6.8	39.0	1,762.6	2.4
-	-	-	-	-	-	-	11.1	-
11.1	1.0	-	7.1	-	.2	37.6	875.8	1.2
-	-	-	-	-	-	-	11.3	-
-	-	-	-	-	-	.7	46.5	.1
-	-	-	-	-	-	3.2	76.7	.1
822.8	297.3	98.6	402.9	489.3	7.7	96.9	6,914.1	9.5
-	35.5	.9	52.1	-	-	4.7	671.6	.9
-	2.6	-	.1	-	.3	1.3	190.6	.3
7.6	41.5	63.7	68.8	5.5	-	83.2	730.1	1.0
24.2	41.8	2.7	82.4	-	.1	13.8	824.6	1.1
15.6	-	19.6	-	-	-	3.5	359.2	.5
449.3	233.3	20.1	252.7	648.2	.2	22.1	4,346.0	5.9
10.7	-	-	1.8	431.7	-	.5	558.0	.8
.2	62.9	1.7	.5	-	.8	19.3	632.0	.9
380.6	382.4	4.7	261.8	789.6	.5	14.3	4,976.4	6.8
-	66.9	-	.6	-	-	2.8	554.6	.8
2.5	1.1	.6	9.4	14.6	-	5.3	550.8	.8
345.2	168.1	6.4	181.8	294.9	1.0	156.0	2,336.1	3.2
-	51.4	12.0	4.0	-	-	61.8	247.9	.3
4,366.3	5,526.1	679.0	6,765.0	7,143.7	59.0	1,376.8	73,132.9	100.0

person for 12 hours, 12 persons for 1 hour, or any equivalent combination of individual or group use,

(Thousands of Visitor-

State Name	Camping	Picnicking	Recreation Travel (Mechanized)	Boating	Games and Team Sports	Waterskiing and Other Water Sports	Swimming and Scuba Diving	Winter Sports	Fishing
Alabama	179.4	56.0	319.0	29.7	.6	10.0	69.0	-	66.4
Alaska	194.8	56.6	307.1	533.0	9.1	.8	6.7	130.3	252.7
Arizona	3,286.3	854.9	3,193.3	414.9	75.1	85.6	289.5	78.9	608.1
Arkansas	521.5	139.8	512.0	146.1	2.5	25.9	212.2	-	428.8
California	14,748.7	997.3	12,633.6	1,001.5	251.6	214.5	1,369.0	1,824.9	3,388.7
Colorado	4,419.1	687.9	3,896.8	137.9	25.8	9.3	33.6	1,842.5	1,420.0
Florida	968.2	289.0	247.5	187.7	5.1	56.5	204.8	-	354.1
Georgia	509.2	60.7	383.9	46.1	4.6	26.1	22.2	1.5	189.1
Idaho	2,488.8	327.5	2,094.3	271.1	40.0	31.3	114.3	397.8	859.4
Illinois	188.1	62.5	210.2	32.0	.9	5.0	27.9	-	37.5
Indiana	193.1	43.5	263.4	89.8	.1	26.4	26.8	-	89.2
Kansas	1.8	8.0	18.6	.1	.1	-	.1	.1	.5
Kentucky	299.2	99.1	657.9	300.6	3.1	59.2	37.3	-	202.2
Louisiana	162.5	35.1	72.7	11.9	1.0	4.9	29.4	-	43.9
Maine	16.2	3.5	10.8	.2	.2	-	1.0	-	3.6
Michigan	928.0	145.5	2,300.6	245.8	12.9	9.6	118.2	149.2	390.2
Minnesota	990.7	48.1	593.2	524.7	10.8	27.8	87.3	77.8	617.1
Mississippi	123.5	38.2	164.4	28.9	1.9	2.7	50.9	-	42.0
Missouri	350.4	72.3	384.0	102.7	8.2	31.7	69.8	-	84.4
Montana	1,641.7	340.5	2,120.6	169.0	26.8	28.9	62.1	302.1	688.7
Nebraska	20.9	20.9	11.7	1.2	2.8	.1	2.2	-	6.8
Nevada	513.7	131.0	336.7	1.3	16.5	.2	32.4	88.2	87.1
New Hampshire	764.1	97.0	553.3	4.6	1.8	.2	47.3	183.6	17.1
New Mexico	1,283.1	391.0	723.2	16.9	42.0	.1	16.4	243.7	252.0
New York	10.1	3.4	6.3	-	-	-	-	.1	3.0
North Carolina	537.0	211.1	944.4	108.1	6.9	13.3	89.2	.7	194.7
North Dakota	10.0	5.6	22.1	2.0	.2	-	.6	1.8	7.1
Ohio	38.1	23.2	198.9	15.7	2.5	1.2	7.9	.1	19.4
Oklahoma	32.7	27.8	170.5	11.7	-	2.0	17.4	-	25.7
Oregon	4,750.6	674.3	3,365.0	598.1	32.7	61.9	307.2	601.4	1,267.4
Pennsylvania	555.0	39.1	344.8	80.2	1.3	6.8	26.0	1.9	260.5
South Carolina	139.1	49.3	233.8	51.2	12.4	12.1	9.2	-	80.3
South Dakota	328.9	78.0	1,302.4	30.5	6.7	5.6	49.6	17.7	90.2
Tennessee	457.7	171.6	324.9	66.0	8.2	25.2	87.9	.1	137.2
Texas	353.3	37.5	205.7	68.6	-	20.5	41.1	-	864.7
Utah	3,441.4	626.1	2,304.5	199.2	69.5	21.5	71.7	551.8	1,045.3
Vermont	83.0	18.5	99.4	3.9	.5	-	9.6	381.4	14.5
Virginia	645.5	132.9	891.8	16.4	12.4	1.5	61.6	1.4	281.8
Washington	3,903.6	335.1	2,581.3	198.8	38.1	14.2	63.5	834.4	710.9
West Virginia	616.5	42.4	312.6	21.9	10.6	-	40.0	.4	213.1
Wisconsin	460.3	27.8	673.4	78.8	.1	9.2	58.5	19.0	206.5
Wyoming	1,585.1	152.5	1,302.8	120.9	18.8	11.0	22.4	274.6	545.7
Puerto Rico	1.6	92.0	14.4	-	3.5	-	12.0	-	-
Service-Wide	52,742.5	7,754.1	47,307.8	5,969.7	767.9	864.8	3,905.8	8,007.4	16,097.8

[1]Recreation use of National Forest land and water which aggregates 12 person-hours may entail 1 person for 12 hours, 12 persons for 1 hour, or any

Summary of Activities, Calendar Year 1976

Days of Recreation Use)[1]

Hunting	Hiking and Mountain Climbing	Horseback Riding	Resort Use	Organization Camp Use	Recreation Residence Use	Gathering Forest Products	Nature Study	Viewing Scenes, Sports Environment	Visitors (Exhibits, Talks, etc.)	Total Use	Percent of Total
199.7	28.1	14.9	-	-	-	22.5	10.6	2.8	15.7	1,024.4	.5
148.8	122.1	3.5	17.1	22.7	36.7	8.6	9.1	25.2	264.3	2,149.2	1.1
579.1	404.9	153.5	309.4	285.3	425.1	143.6	107.5	326.7	258.6	11,880.3	5.9
435.5	90.9	30.8	11.1	20.3	8.5	27.2	11.8	178.5	91.4	2,894.8	1.4
1,345.1	2,180.3	487.2	1,282.5	1,951.8	3,621.7	480.8	315.4	1,384.3	648.8	50,127.7	25.1
790.4	958.9	310.7	325.4	188.1	263.1	154.0	132.4	863.4	182.0	16,641.3	8.3
474.8	46.3	24.7	-	45.6	135.7	25.0	17.8	64.9	30.0	3,177.7	1.6
281.0	184.7	18.9	-	16.2	16.5	8.0	7.5	76.9	54.4	1,907.5	1.0
730.3	296.0	169.6	154.3	154.5	288.9	192.3	31.7	169.7	121.4	8,935.2	4.5
173.6	48.5	46.2	-	-	-	5.2	8.1	68.9	31.8	946.4	.5
79.8	46.8	52.6	-	-	-	23.3	12.4	59.2	10.7	1,017.1	.5
11.0	.8	.2	-	-	-	.1	5.1	-	-	46.5	-
168.7	191.9	29.7	-	9.7	11.0	13.5	6.5	998.7	193.5	3,281.8	1.6
168.4	16.7	4.5	-	-	26.0	15.3	2.6	6.8	12.9	614.6	.3
8.2	5.8	-	-	1.0	-	.3	2.1	1.8	.6	55.3	-
686.8	98.3	30.1	4.5	25.1	86.6	60.8	42.8	64.3	75.4	5,474.7	2.7
136.6	50.3	5.2	82.2	126.0	145.3	22.1	43.6	13.1	45.0	3,646.9	1.8
308.3	17.8	12.2	-	41.0	-	5.6	2.5	4.9	7.3	852.1	.4
174.5	48.6	19.2	-	19.1	-	15.1	6.4	25.9	15.9	1,428.2	.7
720.5	352.0	213.0	92.8	93.0	255.3	100.9	50.1	165.8	266.1	7,689.9	3.8
22.9	8.7	.9	-	12.0	-	7.9	8.5	4.4	10.6	142.5	.1
101.6	67.8	50.2	4.0	50.9	21.4	52.1	11.7	16.9	173.8	1,757.5	.9
25.2	549.2	.9	70.5	2.4	-	3.9	21.5	316.5	27.2	2,686.3	1.3
437.1	282.2	93.0	36.7	55.6	91.8	216.8	20.8	151.0	86.0	4,439.4	2.2
9.6	1.2	1.3	-	-	-	.8	4.2	-	1.2	41.2	-
400.2	236.7	24.6	4.7	1.0	7.1	19.9	14.5	165.9	71.2	3,051.2	1.5
50.8	2.1	2.9	-	-	-	1.5	.6	10.7	2.2	120.2	.1
140.7	17.4	20.6	-	-	-	11.1	3.1	.2	13.1	513.2	.3
59.7	16.7	3.6	-	-	-	3.2	2.7	22.9	19.2	415.8	.2
1,083.4	712.0	154.8	592.5	218.9	404.6	226.7	83.8	602.4	397.6	16,135.3	8.1
427.7	37.5	9.7	2.6	20.0	52.1	21.6	8.0	139.2	21.8	2,055.8	1.0
178.5	27.3	14.4	-	.1	.1	17.0	6.3	9.8	9.6	850.5	.4
77.5	46.5	22.8	66.4	36.3	68.8	8.8	14.0	19.8	97.6	2,368.1	1.2
177.3	115.6	18.7	22.8	29.6	82.4	15.6	6.6	107.6	28.9	1,883.9	.9
149.6	13.8	6.4	23.8	-	-	1.9	6.7	35.5	16.4	1,845.5	.9
714.6	431.8	214.8	449.6	178.7	251.4	86.6	43.5	357.9	91.1	11,151.0	5.6
52.5	79.9	2.6	67.4	.3	1.8	3.4	3.5	78.0	6.9	907.1	.5
539.2	181.5	52.1	1.5	40.5	.5	33.2	30.9	175.2	30.1	3,130.0	1.6
826.0	787.4	219.2	268.1	286.5	261.8	335.1	61.8	946.8	154.0	12,826.6	6.4
222.1	63.0	7.6	-	39.0	.6	8.1	3.8	16.6	48.6	1,667.1	.8
261.1	27.4	5.5	2.6	1.5	9.4	38.3	2.1	6.1	14.3	1,901.9	1.0
481.0	274.7	136.7	357.6	127.0	181.8	23.9	27.3	128.2	181.6	5,953.6	3.0
-	7.9	-	12.0	29.0	4.0	2.0	1.6	14.0	98.8	292.8	.1
14,059.4	9,178.0	2,690.0	4,262.1	4,128.7	6,760.0	2,463.6	1,213.5	7,827.4	3,927.6	199,928.1	100.0

equivalent combination of individual or group use, either continuous or intermittent.

A Summary of Forest Service Developed Sites-Number, Capacity, and Size

As of September 30, 1976

Type of Developed Site	Number of Sites Classified According to Persons at One Time Capacity									Total	Acres
	Under 26	26 to 75	76 to 150	151 to 300	301 to 600	601 to 1,000	Over 1,000	Total	Total Capacity (PAOT)	Developed Site Portion	Peripheral Portion
Observation sites	174	177	68	15	2	1	-	437	24,020	814	23,216
Playgrounds, parks, sports sites	22	24	8	6	4	2	1	67	8,924	843	1,740
Boating sites	267	307	159	107	52	5	3	900	91,506	2,268	108,118
Swimming sites	7	76	80	97	39	10	7	316	72,270	1,199	1,543
Subtotal	274	383	239	204	91	15	10	1,216	163,776	5,467	109,661
Campgrounds:											
Family type	1,275	1,665	934	527	180	20	11	4,612	413,810	38,813	72,514
Group type	11	60	48	25	8	-	-	152	17,806	1,329	3,399
Picnic grounds:											
Family type	486	631	208	93	28	2	1	1,449	95,342	6,421	15,022
Group type	3	24	23	21	3	-	-	74	9,856	364	456
Subtotal	1,775	2,380	1,213	666	219	22	12	6,287	536,814	46,927	91,391
Hotels, lodges, resorts:											
Forest Service owned	3	5	2	2	1	1	1	15	3,682	185	103
Privately owned	52	159	78	43	19	2	1	354	37,903	2,562	4,397
Subtotal	55	164	80	45	20	3	2	369	41,585	2,747	4,500
Organization sites:											
Forest Service owned	6	20	22	14	-	-	-	62	6,549	1,039	1,155
Privately owned	53	102	183	126	15	2	2	483	65,426	5,527	4,876
Subtotal	59	122	205	140	15	2	2	545	71,975	6,566	6,031
Other concessionaire sites	52	59	27	5	9	4	-	156	15,329	1,036	3,646
Recreation residence sites	1,142	329	207	109	34	7	3	1,831	93,848	14,617	15,312
Winter sports sites	2	9	24	32	29	23	106	225	421,933	26,967	52,433
Documentary site	61	4	1	3	2	-	-	71	2,537	2,911	11,573
Interpretive sites:											
Major	5	11	7	8	5	1	1	38	7,761	267	913
Minor	80	105	62	34	8	2	-	291	26,334	1,295	7,329
Administrative	78	10	2	2	-	-	-	92	2,150	215	258
Information sites	44	24	6	4	-	-	-	78	2,995	145	282
Subtotal	207	150	77	48	13	3	1	499	39,240	1,922	8,787
Service-wide developed site total	3,823	3,801	2,149	1,273	438	82	137	11,703	1,419,981	108,817	328,290

National Forest Recreation

State Summary of Recreation Use
Part II - Use of Dispersed Recreation Areas
Calendar Year 1976

Thousands of Vistor-Days of Recreation Use[1]

State Name	Roads	Trails	Lakes and Ponds	Reser-voirs	Rivers & Streams	Oceans & Great Lakes	General Undeveloped Area	Total Use	Total Use Developed & Dispersed
Alabama	342.1	6.8	1.6	72.6	60.4	-	298.7	782.2	1,024.4
Alaska	309.1	101.7	76.6	.8	68.4	717.8	252.2	1,526.6	2,149.2
Arizona	3,238.3	338.1	14.6	738.4	273.0	-	1,858.3	6,460.7	11,880.3
Arkansas	371.4	54.7		430.7	259.1	-	1,108.9	2,224.8	2,894.8
California	12,513.4	2,269.1	977.6	2,140.0	2,372.8	-	10,149.9	30,422.8	50,127.7
Colorado	3,955.7	1,220.5	343.1	545.3	648.1	-	3,447.3	10,160.0	16,641.3
Florida	270.8	27.4	533.5	11.2	168.2	-	891.3	1,902.4	3,177.7
Georgia	398.7	224.1		100.1	167.0	-	533.7	1,423.6	1,907.5
Idaho	1,908.4	411.2	254.9	320.9	596.6	-	2,503.2	5,995.2	8,935.2
Illinois	193.0	53.0	.6	63.2	20.8	-	377.9	708.5	946.4
Indiana	306.7	28.1	-	146.1	56.4	-	233.6	770.9	1,017.1
Kansas	18.8	-	-	1.2	-	-	19.6	39.6	46.5
Kentucky	1,659.2	124.5	-	394.9	166.7	-	338.0	2,683.3	3,281.8
Louisiana	73.2	11.6	-	40.8	30.2	-	239.9	395.7	614.6
Maine	10.8	6.1	2.1	.7	2.2	-	11.4	33.3	55.3
Michigan	2,074.3	170.6	370.6	21.6	272.0	- .8	1,217.4	4,127.3	5,474.7
Minnesota	514.1	71.5	1,043.4	6.0	157.2	-	687.5	2,479.7	3,646.9
Mississippi	172.5	12.7	4.4	30.6	55.1	-	372.4	647.7	852.1
Missouri	398.8	36.1	.1	67.7	174.0	-	338.9	1,015.6	1,428.2
Montana	2,003.4	540.9	246.3	214.0	406.9	-	1,968.5	5,380.0	7,689.9
Nebraska	17.1	2.7	-	8.2	.7	-	57.9	86.6	142.5
Nevada	464.1	73.5	7.2	1.9	90.1	-	414.8	1,051.6	1,757.5
New Hampshire	512.8	625.6	8.2	1.8	37.6	-	416.9	1,602.9	2,686.3
New Mexico	723.3	180.5	22.7	76.1	151.6	-	1,522.6	2,676.8	4,439.4
New York	5.0	3.8	-	3.5	-	-	17.6	30.1	41.2
North Carolina	961.1	184.8	4.6	142.5	220.4	-	662.0	2,175.4	3,051.2
North Dakota	27.3		-	8.0	4.6	-	69.0	108.9	120.2
Ohio	191.2	1.3	-	10.9	31.1	-	232.2	466.7	513.2
Oklahoma	45.1	10.2	-	26.0	.4	-	257.4	339.1	415.8
Oregon	3,384.7	596.8	500.2	434.8	966.5	-	3,338.2	9,221.2	16,135.3
Pennsylvania	429.7	22.5	-	118.6	180.2	-	633.2	1,384.2	2,055.8
South Carolina	236.5	24.6	.2	56.5	86.3	-	255.8	659.9	850.5
South Dakota	1,299.7	13.4	-	116.4	31.9	-	176.6	1,638.0	2,368.1
Tennessee	329.3	122.7	-	95.7	162.4	-	349.2	1,059.3	1,883.9
Texas	219.4	8.2	.8	954.1	16.1	-	287.7	1,486.3	1,845.5
Utah	2,300.2	438.9	221.6	627.9	433.9	-	2,782.5	6,805.0	11,151.0
Vermont	117.2	42.6	9.6	3.3	11.0	-	165.4	349.1	907.1
Virginia	1,018.8	184.0	-	89.3	216.8	-	989.1	2,498.0	3,130.0
Washington	2,841.4	783.9	382.8	91.1	448.9	- 3.5	3,298.6	7,850.2	12,826.6
West Virginia	319.1	73.6	1.0	35.1	200.3	-	483.4	1,112.5	1,667.1
Wisconsin	589.2	73.4	184.7	13.2	106.3	-	384.3	1,351.1	1,901.9
Wyoming	1,216.5	295.7	174.7	133.8	346.4	-	1,450.4	3,617.5	5,953.6
Puerto Rico	19.0	7.2	-	-	11.0	-	7.7	44.9	292.8
Service-Wide	48,000.4	9,478.6	5,387.7	8,395.5	9,709.6	722.1	45,101.3	126,795.2	199,928.1

[1]Recreation use of National Forest land and water which aggregates 12 person-hours, may entail 1 person for 12 hours, 12 persons for 1 hour, or any equivalent combination of individual or group use, either continuous or intermittent.

Human Resource Programs

Manpower Training Programs - Fiscal Year 1976*

	Appraised Value of Work Accomplished	Number of Participants	Man-Years of Work
Northeastern Area	133,191	47	24
Southeastern Area	(Included in R-8)		
Regions:			
1. Northern	1,171,829	1,089	175
2. Rocky Mountain	1,053,322	1,139	190
3. Southwestern	555,985	811	128
4. Intermountain	1,125,688	763	182
5. California	4,664,606	9,062	676
6. Pacific Northwest	4,674,827	3,535	626
8. Southern	3,510,528	1,580	578
9. Eastern	1,993,515	1,170	332
10. Alaska	5,500	4	4
Research Units:			
Intermountain Forest and Range Experiment Station	121,232	149	33
North Central Forest Experiment Station	16,196	23	2
Northeastern Forest Experiment Station	12,558	10	2
Pacific Northwest Forest and Range Experiment Station	76,200	81	12
Pacific Southwest Forest and Range Experiment Station	151,486	40	26
Rocky Mountain Forest and Range Experiment Station	14,660	128	13
Southeastern Forest Experiment Station	33,917	17	6
Southern Forest Experiment Station	4,200	28	3
Institute of Tropical Forestry	(Included in R-8)		
Forest Products Laboratory	3,634	6	1
Total	19,323,074	19,682	3,013

*Includes transition quarter figures.

Job Corps Program - Fiscal Year 1976*

	Appraised Value of Work Accomplished	Number of Participants	Man-Years of Work
Northeastern Area	-	-	-
Southeastern Area	-	-	-
Regions:			
1. Northern	$1,511,250	956	423
2. Rocky Mountain	1,031,610	789	368
3. Southwestern	-	-	-
4. Intermountain	-	-	-
5. California	-	-	-
6. Pacific Northwest	1,579,430	1,835	796
8. Southern	5,091,956	2,695	1,280
9. Eastern	774,438	949	416
10. Alaska	-	-	-
Research Units	-	-	-
Total	$9,936,584	7,224	3,283

*Figures shown represent participation during the period of July 1, 1975 through June 30, 1976.

Youth Conservation Corps - Calendar Year 1976*

	Number of Participants	Man-Weeks of Participation	Minority Participation (Percent)
Northeastern Area	-	-	-
Southeastern Area	-	-	-
Regions:			
1. Northern	250	1,838	1
2. Rocky Mountain	312	2,369	20
3. Southwestern	431	3,070	41
4. Intermountain	331	2,294	7
5. California	800	5,227	18
6. Pacific Northwest	333	2,515	4
8. Southern	1,791	13,346	22
9. Eastern	2,439	13,766	6
10. Alaska	97	631	27
Research Units:			
Intermountain Forest and Range Experiment Station	20	159	0
North Central Forest Experiment Station	-	-	-
Northeastern Forest Experiment Station	20	220	0
Pacific Northwest Forest and Range Experiment Station	-	-	-
Pacific Southwest Forest and Range Experiment Station	10	75	40
Rocky Mountain Forest and Range Experiment Station	-	-	-
Southeastern Forest Experiment Station	-	-	-
Southern Forest Experiment Station	29	219	38
Institute of Tropical Forestry	-	-	-
Forest Products Laboratory	-	-	-
Total	6,863	45,729	15

*Forest Service only. Does not include Department of the Interior or State grants. Value of work accomplished not yet available.

Volunteers in the National Forest - Fiscal Year 1976*

	Appraised Value of Work Accomplished	Number of Participants	Man-Years of Work
Northeastern Area	1,290	1	1
Southeastern Area	-	-	-
Regions:			
1. Northern	166,920	372	31
2. Rocky Mountain	358,966	2,613	62
3. Southwestern	263,648	1,409	26
4. Intermountain	195,105	3,164	37
5. California	674,425	2,199	95
6. Pacific Northwest	261,458	1,077	45
8. Southern	110,746	343	19
9. Eastern	134,603	344	23
10. Alaska	6,348	23	5
Research Units:			
Intermountain Forest and Range Experiment Station	20,565	13	1
North Central Forest Experiment Station	36,805	22	5
Northeastern Forest Experiment Station	-	-	-
Pacific Northwest Forest and Range Experiment Station	22,150	44	2
Pacific Southwest Forest and Range Experiment Station	25,130	19	4
Rocky Mountain Forest and Range Experiment Station	25,437	18	2
Southeastern Forest Experiment Station	35,010	15	3
Southern Forest Experiment Station	-	-	-
Institute of Tropical Forestry	-	-	-
Forest Products Laboratory	-	-	-
Total	2,338,606	11,676	361

*Includes transition quarter figures.

Volume and Value of Timber Sold and Harvested on National Forest Land, by States, Timber Stand Improvement and Area Planted and Seeded to Trees

Fiscal Year 1976

States	Timber Sold			Timber Harvested		Timber Stand Improvement	Area Planted and Seeded to Trees
	No. Sales*	Volume-MBF	Value	Volume-MBF	Value	Acres	Acres
Alabama	170	70,724	$2,685,906	50,350	$1,941,971	2,141	6,926
Alaska	20	7,638	166,519	448,860	3,390,480	2,013	10
Arizona	4,169	223,286	7,155,628	262,351	11,063,439	50,089	3,682
Arkansas	602	212,720	7,623,761	200,957	6,448,832	14,930	20,021
California	9,702	1,900,965	127,171,568	1,731,612	97,413,060	64,143	31,442
Colorado	1,164	125,115	541,425	141,853	2,323,670	13,225	4,721
Florida	137	82,297	3,396,593	72,722	2,951,378	8,906	9,679
Georgia	446	63,986	2,441,932	47,051	1,694,351	1,747	3,693
Idaho	2,420	773,360	14,438,702	777,107	27,848,936	19,537	23,721
Illinois	37	5,192	100,779	3,240	96,674	1,299	971
Indiana	35	5,882	123,466	4,671	136,196	812	811
Kentucky	193	18,439	346,798	29,313	541,311	2,747	3,719
Louisiana	461	172,156	9,345,739	148,268	6,260,386	4,386	4,927
Maine	1	2,592	4,736	1,241	19,119	388	-
Michigan	296	165,583	1,712,113	94,383	901,181	14,572	4,074
Minnesota	202	90,485	753,631	97,218	760,009	8,584	7,788
Mississippi	416	191,658	11,229,387	144,400	7,843,569	4,734	10,083
Missouri	453	52,642	933,865	41,201	844,963	11,656	2,538
Montana	2,096	448,542	16,631,737	444,166	14,908,588	25,142	14,045
Nebraska	-	-	-	-	-	-	13
Nevada	110	552	3,513	230	2,539	180	-
New Hampshire	27	28,415	521,446	16,714	479,998	2,178	-
New Mexico	4,327	134,844	2,681,692	137,405	4,645,917	28,532	6,012
New York LUP	5	46	905	32	670	607	29
North Carolina	255	7,961	50,422	50,049	1,158,212	5,648	3,063
Ohio	42	7,744	157,612	3,404	82,464	429	652
Oklahoma	85	22,137	506,558	39,517	1,554,992	1,465	2,320
Oregon	9,351	3,458,754	373,729,855	2,929,847	225,783,918	81,908	62,472
Pennsylvania	108	43,438	1,654,659	52,980	2,079,122	1,193	437
Puerto Rico	-	-	-	-	-	843	148
South Carolina	107	11,477	382,467	114,295	4,950,368	2,304	4,863
South Dakota	158	124,449	1,190,159	85,785	774,281	-	-
Tennessee	199	49,405	858,738	32,871	404,813	3,066	929
Texas	515	100,544	6,711,312	97,948	5,319,572	2,083	4,838
Utah	1,422	54,921	412,549	50,780	681,385	8,836	1,464
Vermont	30	12,721	242,652	6,725	162,661	1,799	220
Virginia	164	8,003	32,050	30,196	377,211	6,503	1,696
Washington	1,972	1,391,787	109,935,523	1,016,184	54,180,166	29,470	36,033
West Virginia	77	1,736	44,962	10,726	220,250	7,219	518
Wisconsin	175	87,752	1,017,218	82,933	847,789	4,250	2,281
Wyoming	863	127,322	894,113	75,870	934,749	1,472	4,949
Grand Totals	43,012	10,287,270	$707,832,690	9,575,455	$492,029,190	441,036	285,788

*Excludes non-convertible sales

Transition Quarter	13,966	1,535,301	$94,005,949	3,431,964	$209,937,583	124,275	7,138

Forest Service Reforestation and Timber Stand Improvement on the National Forest System

Fiscal Year 1976

(In Acres)

Type of Work	Financed from--			
	Forest Land Management Appropriation	Deposits by Timber Purchasers	Anti-poverty and Other Programs	Total
Planted	115,473	145,531	5,257	266,261
Seeded	8,797	10,730	-	19,527
Natural regeneration on prepared sites	29,145	29,293	2,018	60,456
Total reforestation	153,415	185,554	7,275	346,244
Transition Quarter	6,778	16,980	328	24,086
Release	92,051	36,921	6,371	135,343
Thinning	150,723	122,698	7,329	280,750
Pruning	1,362	1,399	1,367	4,128
Fertilizing	20,620	29	166	20,815
Total timber stand improvement	264,756	161,047	15,233	441,036
1976 Transition Quarter	67,438	53,857	2,980	124,275

Forest Service Reforestation and Timber Stand Improvement on the National Forest System

(In Acres)

Fiscal Year	Planted and Seeded	Natural Regeneration on Prepared Sites	Total Reforested	Stand Improvement
1976	285,788	60,456	346,244	441,036
1975	292,954	68,727	361,681	454,496
1974	271,761	89,296	361,057	347,746
1973	298,631	52,190	350,821	354,414
1972	268,050	58,707	326,757	369,344
1971	267,029	40,716	307,745	303,318
1976 Transition Quarter	7,138	16,948	24,086	124,275

Forest Service Allowable Harvest (Potential Yield), Timber Harvested, and Timber Sold on the National Forest System

(Volumes in Billions of Board Feet)

Fiscal Year	Potential[1] Yield	Annual Allowable Harvest	Actual Volume Harvested	Percent of		Actual Volume Sold	Percent of	
				Potential Yield	Allowable Harvest		Potential Yield	Allowable Harvest
1976	16.2		9.6	59		10.3	64	
1975	15.8		9.2	58		10.8	68	
1974		13.3	11.0		83	10.2		77
1973		13.6	12.4		91	10.2		75
1972		13.6	11.7		86	10.3		76
1971		13.7	10.3		75	10.6		77
1976 Transition Quarter			3.4	27		1.5	9	

[1]The term "Allowable Harvest" has been changed to "Potential Yield." The change includes addition of marginal land component and potential harvest.

Wildlife Habitat Improvement on National Forests and National Grasslands

Fiscal Year 1976[1]

Project	Accomplishment
Wildlife Food and Cover Improvements:	
Seeding and planting forage	362,000 acres
Release, pruning, pushing	253,000 acres
Prescribed burning	1,629,000 acres
Protecting key wildlife areas	225,000 acres
Small Water Developments for Wildlife:	
Ponds, troughs, guzzlers, etc.	163,000 acres
Waterfowl wetland improvement	36,040 acres
Fish Stream Improvements:	
Channel structures	735 acres
Spawnbed improvement	8 acres
Stream barrier removal	3,500 acres
Channel stabilization	580 acres
Fish population control	50 acres
Fish Lake Improvements:	
New fishing lakes	360 acres
Fish shelters and spawnbeds	40 acres
Aquatic plant control	1,500 acres
Fish population control	1,600 acres

[1]Represents total habitat improved rather than acres on which habitat work was accomplished.

Estimated Legal Harvest of Principal Big-Game Animals[1] in National Forests, National Grasslands, and Land Utilization Projects

Fiscal Year 1976

State	Deer	Elk	Bear	Antelope	Moose	Turkey[2]
Alabama	2,025	-	-	-	-	595
Alaska	10,731	20	604	-	168	-
Arizona	9,573	1,110	173	173	-	1,385
Arkansas	4,463	1	-	-	-	1,724
California	13,280	5	486	87	-	60
Colorado	24,448	20,055	573	286	-	138
Florida	1,014	-	23	-	-	24
Georgia	3,891	-	5	-	-	134
Idaho	25,539	8,960	2,088	685	198	24
Illinois	2,411	-	-	-	-	45
Indiana	305	-	-	-	-	16
Kansas	-	-	-	-	-	25
Kentucky	230	-	-	-	-	4
Louisiana	1,870	-	-	-	-	45
Maine	65	-	6	-	-	-
Michigan	10,880	-	287	-	-	-
Minnesota	5,543	-	181	-	227	-
Mississippi	3,075	-	-	-	-	747
Missouri	3,809	-	2	-	-	1,970
Montana	26,069	13,108	1,327	294	524	364
Nebraska	1,560	-	-	910	-	230
Nevada	2,921	7	3	14	-	10
New Hampshire	746	-	115	-	-	-
New Mexico	14,337	526	174	119	-	1,037
New York	200	-	-	-	-	15
North Carolina	2,830	-	83	-	-	41
North Dakota	2,407	-	-	382	-	20
Ohio	1,103	-	-	-	-	12
Oklahoma	170	-	-	-	-	101
Oregon	27,250	12,595	832	103	-	25
Pennsylvania	10,370	-	33	-	-	1,350
South Carolina	7,841	1	-	-	-	462
South Dakota	10,512	71	-	15	-	2,680
Tennessee	732	-	3	-	-	32
Texas	1,095	-	-	-	-	-
Utah	25,886	2,370	25	49	47	8
Vermont	540	-	10	-	-	17
Virginia	11,451	-	115	-	-	2,792
Washington	18,187	4,118	1,240	-	1	4
West Virginia	4,150	-	48	-	-	1,070
Wisconsin	3,740	-	104	-	-	-
Wyoming	14,722	17,130	270	5,342	1,232	20
Total	312,000	80,000	8,780	8,500	2,400	17,000

[1]Legal harvest of other big-game animals for all lands administered by the Forest Service includes 420 mountain goats, 420 bighorn sheep, 12 Dall sheep, and 200 wild boar.

[2]Turkey are classed as a big-game species for this report.

NOTE--Total figures are rounded-off.

Annual Grazing Report

Calendar Year 1975

(National Forest System, All Regions)

Item	Cattle		Horses		Sheep		Total	
	Number	Animal Months	Number	Animal Months	Number	Animal Months	Number	Animal-unit Months
Authorized Use:								
Paid:								
Term Permit	997,853	4,538,035	1,607	8,524	1,306,097	2,852,652	2,305,557	5,037,881
Temporary Permit	192,864	817,497	13,306	22,537	142,743	249,879	348,913	863,493
Grazing Agreement	173,979	1,034,348	1,393	13,307	16,050	101,218	191,422	1,044,028
Special Use Pasture	15,786	53,826	2,307	5,408	2,291	10,697	20,384	62,737
Total	1,380,482	6,443,706	18,613	49,776	1,467,181	3,214,446	2,866,276	7,008,139
Free Use:								
Recreation Stock	-	-	139,013	36,488	-	-	139,013	43,780
Other	926	4,344	16,902	29,263	2,933	3,726	20,761	40,181
Total	926	4,344	155,915	65,751	2,933	3,726	159,774	83,961
Non-National Forest Lands:								
Private Land Permit	57,812	227,908	287	2,858	69,878	109,425	127,977	249,848
Other	11,500	20,335	12	44	9,081	14,507	20,593	23,290
Total	69,312	248,243	299	2,902	78,959	123,932	148,570	273,138
Total Authorized Use	1,450,720	6,696,293	174,827	118,429	1,549,073	3,342,104	3,174,620	7,365,238
Unauthorized Use	11,206	12,946	854	1,988	6,751	1,544	18,811	15,506
Crossing	89,980	-	89	-	340,049	-	430,118	-
Losses:								
Poisonous Plants	2,927	-	2	-	3,922	-	6,851	-
Predators	1,149	-	2	-	31,766	-	32,917	-
Other	11,026	-	65	-	14,049	-	25,140	-
Total	15,102	-	69	-	49,737	-	64,908	-

National Forest and Cooperative Forest Pest Management Accomplishments

Fiscal Year 1976

Detection, Evaluation, and Presuppression Surveys--Insects and Diseases[1]

Ownership or Management	Area Surveyed Acres (Detection)	Area Evaluated Acres	Area Surveyed Acres (Presuppression)
National Forests and Other Federal----------	91,160,711	10,016,217	14,114,351
State and Private---------	347,298,175	131,506,258	154,128,426
Total----------	438,458,886	141,522,475	168,242,777

[1]Includes air pollution damage

Insect and Disease Suppression

Ownership or Management	Acres Treated	Vol. of Timber Protected (MCF)
National Forests and Other Federal----------	155,107	19,341
State and Private----------	3,961,666	121,936
Total----------	4,116,773	141,277

Cooperative Forest Management and Processing Program
- Progress and Expenditures -

Fiscal Year 1976
(Forest Service and State Foresters Cooperating)

State or Commonwealth	Progress						Expenditures		
	Woodland Owners Assisted	Woodland Involved	Planting and TSI Assistance[1]	Timber Marked	Loggers and Processors Assisted	Improved Utilization	Federal	State	Total
	-Number-	-Acres-	-Acres-	Boardfeet (Thousands)	- Number -	Cubic feet (Thousands)	-Dollars-	-Dollars-	-Dollars-
Alabama	1,369	127,300	3,503	6	26	1,550	130,700	243,000	373,700
Alaska	162	151,239	112	90	54	60	30,000	30,000	60,000
Arizona	361	6,981	1,357	521	49	8,625	34,900	60,200	95,100
Arkansas	1,093	75,583	11,112	204	18	2,000	119,900	476,800	596,700
California	2,353	56,727	13,572	8,494	146	783	76,000	125,000	201,500
Colorado	970	22,426	563	59	41	232	54,600	256,500	261,100
Connecticut	481	28,416	981	966	66	0	35,000	35,000	90,000
Delaware	340	10,184	390	4,721	51	0	30,500	42,200	72,700
Florida	4,945	117,987	10,573	1,514	199	8,925	210,500	1,007,100	1,217,600
Georgia	7,412	651,424	20,986	8,216	3,003	5,232	213,500	254,600	468,100
Guam	6	26	2	0	1	0	8,000	8,000	16,000
Hawaii	115	336	4	0	12	0	30,300	53,000	83,300
Idaho	163	3,342	182	2,908	50	1,478	38,700	115,900	154,600
Illinois	1,877	17,257	522	2,340	45	0	77,500	400,200	477,700
Indiana	1,917	14,765	361	9,028	155	6	65,400	192,600	258,000
Iowa	1,444	11,718	1,282	1,328	46	102	67,400	125,600	193,000
Kansas	567	8,513	2,099	1,530	18	56	37,000	194,200	231,200
Kentucky	8,588	122,080	14,342	10,589	196	4,242	161,500	634,500	796,000
Louisiana	2,126	72,724	2,605	2,967	40	1,059	102,500	252,800	355,300
Maine	2,620	23,375	7,349	8,273	308	2,513	98,500	219,700	318,200
Maryland	3,322	45,458	4,844	4,316	61	215	76,700	348,300	425,000
Massachusetts	824	56,684	3,191	5,493	81	369	42,500	75,500	118,000
Michigan	1,459	56,581	6,228	6,149	88	950	144,500	205,800	350,300
Minnesota	2,145	153,844	31,950	7,655	126	166	98,900	332,700	431,600
Mississippi	4,037	160,259	12,134	21,215	526	7,223	161,700	645,800	807,500
Missouri	3,014	101,344	7,531	1,514	38	1,876	161,400	1,095,000	1,256,400
Montana	680	91,171	2,065	34,519	264	10,633	59,300	106,900	166,200
Nebraska	473	3,992	2,156	455	15	91	36,300	113,700	150,000
Nevada	18	5,932	507	0	0	0	33,500	101,700	135,200
New Hampshire	788	41,900	3,482	5,049	108	207	72,800	107,200	180,000
New Jersey	1,100	41,345	1,363	2,320	142	23	44,500	143,100	187,600
New Mexico	389	28,960	305	299	57	2,398	46,500	66,900	113,400
New York	3,447	109,711	5,120	33,106	181	6,253	186,700	836,500	1,023,200
North Carolina	5,251	216,318	9,739	3,188	21	290	279,500	1,868,400	2,147,900
North Dakota	215	6,989	288	800	11	25	30,800	115,900	146,700
Ohio	483	28,902	6,650	20,074	45	173	105,000	422,000	527,000
Oklahoma	340	28,558	10,217	492	9	152	50,200	140,900	191,100
Oregon	448	68,807	54,969	0	5,942	21,322	68,200	602,200	670,400
Pennsylvania	2,027	39,668	4,092	10,577	104	12,000	163,900	760,900	924,800
Puerto Rico	742	2,968	478	0	11	0	30,700	31,300	62,000
Rhode Island	171	4,234	118	756	0	0	33,700	51,700	85,400
South Carolina	3,550	178,782	2,678	9,187	48	863	137,100	392,100	529,200
South Dakota	393	3,343	568	1,899	3	254	38,000	158,200	196,200
Tennessee	2,160	65,235	1,616	24,524	8	50	114,100	1,484,000	1,598,100
Texas	1,235	90,570	6,223	1,747	67	4,758	110,200	796,700	906,900
Utah	321	9,178	400	1,821	28	929	41,000	75,700	116,700
Vermont	1,442	62,787	4,422	18,155	100	367	77,500	157,600	235,100
Virginia	16,756	439,600	32,712	266,188	2,335	25,652	219,100	1,387,300	1,606,400
Virgin Islands	177	44	34	0	0	0	10,000	10,000	20,000
Washington	2,074	77,680	1,694	23,200	157	7,314	89,300	176,200	265,500
West Virginia	556	230,965	6,066	12,269	123	292	86,100	231,000	317,100
Wisconsin	5,417	106,545	17,157	15	79	96,320	181,700	840,800	1,022,500
Wyoming	108	4,342	763	15,199	22	9,532	32,700	67,500	100,200
U.S. Total	104,471	4,085,099	333,657	595,935	15,324	247,560	4,687,000	18,646,400	23,333,400

[1]Includes both areas receiving technical assistance only and cost-sharing assistance through FIP and ACP.

Funds and Quantity of Forest and Windbarrier Planting Stock Distributed Under Section 4, Clarke-McNary Act

Fiscal Year 1976

State or Commonwealth	Federal Allotment	Expenditures	Total Trees Distributed
	Dollars	Dollars	Numbers
Alabama	-	-	67,484,000
Alaska	3,000	3,000	-
Arizona	6,000	16,200	120,000
Arkansas	-	-	23,302,000
California	-	-	2,762,000
Colorado	7,000	165,000	893,000
Connecticut	-	-	944,000
Delaware	2,500	23,000	250,000
Florida	-	-	45,826,000
Georgia	-	-	43,308,000
Guam	7,000	5,700	30,000
Hawaii	-	-	229,000
Idaho	10,000	17,200	395,000
Illinois	-	-	5,388,000
Indiana	-	-	-
Iowa	-	-	21,000
Kansas	10,000	79,700	1,069,000
Kentucky	-	-	7,804,000
Louisiana	-	-	47,604,000
Maine	-	-	889,000
Maryland	-	-	3,269,000
Massachusetts	-	-	-
Michigan	-	-	-
Minnesota	-	-	11,719,000
Mississippi	-	-	43,104,000
Missouri	-	-	-
Montana	10,000	35,600	1,225,000
Nebraska	8,000	41,400	503,000
Nevada	12,000	24,800	85,000
New Hampshire	-	-	557,000
New Jersey	2,500	35,200	542,000
New Mexico	12,000	14,600	111,000
New York	-	-	-
North Carolina	-	-	38,183,000
North Dakota	12,000	100,900	952,000
Ohio	-	-	8,661,000
Oklahoma	9,000	79,300	2,145,000
Oregon	-	-	6,300,000
Pennsylvania	-	-	5,617,000
Puerto Rico	3,000	7,000	566,000
Rhode Island	2,000	7,000	314,000
South Carolina	-	-	31,557,000
South Dakota	10,000	17,200	626,000
Tennessee	-	-	-
Texas	-	-	21,049,000
Utah	10,000	57,400	726,000
Vermont	-	-	11,000
Virginia	-	-	60,412,000
Virgin Islands	3,000	6,900	4,000
Washington	-	-	-
West Virginia	-	-	4,068,000
Wisconsin	-	-	15,534,000
Wyoming	4,000	14,000	306,000
Total	143,000	751,100	506,464,000

Planting Stock Available for Forest and Windbarrier Planting, and Area Planted or Seeded on Federal, State, and Private Lands

Fiscal Year 1976

State or Commonwealth	Planting Stock Produced, Fiscal Year 1976				Area Planted or Seeded Fiscal Year 1976	Grand Total Forest and Windbarrier Plantings Since 1926
	Federal Nurseries	State Nurseries	Forest Industry and Other Public Nurseries	Total		
	Thousands	Thousands	Thousands	Thousands	Acres	Acres
Alabama	-	71,245	43,500	114,745	135,284	2,849,463
Alaska	8	-	-	8	27	5,398
Arizona	-	-	-	-	4,713	55,312
Arkansas	-	23,302	53,000	76,302	120,139	1,079,943
California	16,341	3,341	13,125	32,807	65,896	911,256
Colorado	3,446	1,422	-	4,868	8,063	237,992
Connecticut	-	1,664	-	1,664	3,401	74,689
Delaware	-	500	-	500	1,306	21,324
Florida	-	49,701	62,868	112,569	159,290	4,035,441
Georgia	-	38,933	29,831	68,764	124,538	3,636,377
Guam	-	50	-	50	110	364
Hawaii	-	227	-	227	328	133,336
Idaho	25,331	399	-	25,730	32,587	548,514
Illinois	-	5,940	-	5,940	8,137	270,681
Indiana	-	4,295	-	4,295	8,962	288,624
Iowa	-	1,479	-	1,479	2,664	113,493
Kansas	-	210	-	210	3,115	285,981
Kentucky	-	8,679	2,130	10,809	18,358	413,803
Louisiana	428	52,016	7,136	59,580	82,176	2,422,395
Maine	-	892	486	1,378	570	77,673
Maryland	-	3,274	-	3,274	4,702	162,134
Massachusetts	-	-	-	-	168	114,324
Michigan	4,420	3,059	2,200	9,679	17,003	1,852,959
Minnesota	2,601	11,719	1,123	15,443	25,917	1,053,497
Mississippi	20,527	41,998	-	62,525	116,674	2,707,679
Missouri	-	8,741	150	8,891	9,107	319,242
Montana	-	1,225	246	1,471	19,628	371,382
Nebraska	2,060	258	-	2,318	6,772	472,184
Nevada	-	60	-	60	10	8,216
New Hampshire	-	932	-	932	451	66,221
New Jersey	-	545	-	545	667	66,545
New Mexico	34	-	-	34	7,713	72,855
New York	-	8,293	-	8,293	8,532	1,403,794
North Carolina	-	45,356	42,371	87,727	130,518	1,680,533
North Dakota	-	1,244	4,017	5,261	5,001	274,081
Ohio	-	9,655	-	9,655	12,305	557,999
Oklahoma	-	2,959	-	2,959	48,698	315,184
Oregon	5,320	29,408	51,423	86,151	196,630	3,223,866
Pennsylvania	-	6,089	4,020	10,109	27,130	1,316,068
Puerto Rico	-	566	-	566	577	109,426
Rhode Island	-	-	-	-	216	39,103
South Carolina	-	40,612	12,296	52,908	74,122	1,991,607
South Dakota	-	1,089	-	1,089	6,468	307,924
Tennessee	-	10,644	-	10,644	17,702	924,133
Texas	-	19,404	16,000	35,404	79,453	1,277,811
Utah	-	434	-	434	2,186	38,297
Vermont	-	236	-	236	504	85,824
Virgin Islands	-	6	-	6	10	184
Virginia	-	51,745	11,648	63,393	85,913	1,372,843
Washington	30,900	22,848	48,792	102,540	164,207	2,128,160
West Virginia	-	5,534	-	5,534	13,236	274,729
Wisconsin	2	16,592	2,500	19,094	24,290	1,354,961
Wyoming	-	-	-	-	6,135	75,476
Total	111,418	608,820	408,862	1,129,100	1,892,309	43,481,300

Wildfires on State and Private Areas Protected Under the Clarke-McNary Act, Section 2

Calendar Year 1975

State	Area Protected (Thousand Acres)	Fires (Number)	Area Burned (Acres)
Alabama	25,029	3,352	42,448
Alaska	19,923	108	900
Arizona	18,328	125	6,078
Arkansas	20,698	2,928	41,451
California	33,278	10,588	137,598
Colorado	9,482	984	3,746
Connecticut	2,390	1,196	2,652
Delaware	557	37	144
Florida	26,243	7,291	278,764
Georgia	27,279	7,234	25,432
Guam	16	894	4,083
Hawaii	3,306	45	3,436
Idaho	9,901	398	8,062
Illinois	8,453	83	1,303
Indiana	7,328	53	390
Iowa	7,612	205	2,620
Kansas	19,792	1,323	21,663
Kentucky	16,886	1,900	19,010
Louisiana	12,239	4,829	40,485
Maine	17,743	911	1,988
Maryland	3,700	672	1,637
Massachusetts	3,581	7,491	8,512
Michigan	19,675	853	16,796
Minnesota	22,830	1,065	53,067
Mississippi	19,852	4,126	50,633
Missouri	15,696	2,684	19,768
Montana	8,352	229	234
Nebraska	27,154	1,759	53,565
Nevada	8,777	230	280
New Hampshire	4,631	450	378
New Jersey	2,705	1,671	4,962
New Mexico	44,629	118	2,990
New York	16,958	795	2,968
North Carolina	20,867	2,540	16,327
North Dakota	228	8	132
Ohio	5,823	698	1,968
Oklahoma	5,007	1,153	63,784
Oregon	13,029	1,215	2,654
Pennsylvania	19,541	1,323	5,755
Rhode Island	512	999	902
South Carolina	12,050	3,482	12,049
South Dakota	25,816	851	30,671
Tennessee	12,483	2,624	21,046
Texas	18,240	1,431	16,079
Utah	14,724	311	44,552
Vermont	4,638	256	670
Virginia	18,595	2,407	4,660
Washington	12,509	1,143	2,056
West Virginia	12,833	1,495	16,458
Wisconsin	18,898	1,950	6,444
Wyoming	25,540	513	15,177
Total	726,356	91,026	1,119,427

Fire Control Dollar Expenditures[1]
Under the Clarke McNary Act, Section 2

Fiscal Year 1975

State or Commonwealth	Federal Funds	State and Private Funds	Total
Alabama	$ 717,045	$ 3,083,177	$ 3,800,222
Alaska	503,630	1,180,374	1,684,004
Arizona	109,758	302,380	412,138
Arkansas	661,781	1,912,489	2,574,270
California	1,510,636	43,835,894	45,346,530
Colorado	409,443	3,648,793	4,058,236
Connecticut	167,654	103,512[2]	271,166
Delaware	70,540	70,541	141,081
Florida	871,919	10,171,006	11,042,925
Georgia	894,786	8,358,483	9,253,269
Guam	16,000	16,179	32,179
Hawaii	81,853	212,156	294,009
Idaho	472,830	1,486,270	1,959,100
Illinois	206,387	254,798	461,185
Indiana	120,107	120,107	240,214
Iowa	85,803	142,500	228,303
Kansas	314,482	968,767	1,283,249
Kentucky	536,548	1,975,137	2,511,685
Louisiana	780,158	3,848,198	4,628,356
Maine	624,702	1,878,864	2,503,566
Maryland	347,504	808,217	1,155,721
Massachusetts	294,582	896,949	1,191,531
Michigan	806,766	2,251,763	3,058,529
Minnesota	482,573	875,470	1,358,043
Mississippi	780,763	4,391,288	5,172,051
Missouri	653,057	2,066,613	2,719,670
Montana	310,287	1,446,569	1,756,856
Nebraska	272,656	815,448	1,088,104
Nevada	317,292	390,954	708,246
New Hampshire	168,756	540,599	709,355
New Jersey	384,744	1,145,024	1,529,768
New Mexico	153,439	567,003	720,442
New York	663,476	2,544,011	3,207,487
North Carolina	814,177	5,141,741	5,955,918
North Dakota	67,422	214,760	282,182
Ohio	278,540	704,010	982,550
Oklahoma	385,743	977,236	1,362,979
Oregon	821,827	5,056,179	5,878,006
Pennsylvania	644,147	3,683,353	4,327,500
Rhode Island	99,572	283,243	382,815
South Carolina	759,773	4,366,489	5,126,262
South Dakota	138,780	1,279,994	1,418,774
Tennessee	741,679	2,459,401	3,201,080
Texas	552,192	1,607,195	2,159,387
Utah	230,887	435,959	666,846
Vermont	76,400	86,896	163,296
Virginia	703,107	5,016,159	5,719,266
Washington	824,789	6,120,611	6,945,400
West Virginia	320,920	788,117	1,109,037
Wisconsin	757,373	3,307,425	4,064,798
Wyoming	194,196	603,328	797,524
Totals	23,203,481	144,441,629	167,645,110

[1]Revision of FY 1975 Expenditures. FY 1976 Expenditures are not yet available.
[2]FY 1974 Expenditures. FY 1975 Expenditures are not available.

Works of Improvement Installed in Watershed Protection Projects
(Pilot and PL-566)

Fiscal Year 1976

Works of Improvement	Unit	Installed in 1976 With Assistance Under the Watershed Protection Program	Est. Practices "On the Land" in Active Projects as of 6/30/76
Land Treatment Measures			
Channel Improvement	Miles	-	6.6
Channel Stabilization	Miles	-	12
Contour Terrace and Furrows	Miles	214	560.4
Area Treated	Acres	-	14,334
Gully Control and Stabilization	Miles	23	187.6
Grade Stabilization Structures	No.	3	2,880
Critical Area Stabilization by Tree Planting and Other Measures	Acres	1,035	41,075
Forest Road and Roadbank Stabilization	Miles	301.3	1,534.8
Acres Treated	Acres	-	5,449.6
Fire; Roads, Trails & Firebreaks and Fuel-breaks	Miles	78	1,190
Fire Control Water Developments	No.	-	39
Fire Towers	No.	-	8
Intensified Fire Protection	Acres	6,597	2,251,060
Heliports and Helispots	No.	3	36
Mobile Fire Equipment	No.	-	59
Other Fire Control Improvements	No.	-	458
Radio Installation	No.	2	51
Forest Watershed Management Plans Prepared	No.	1,675	12,232
Area Included	Acres	122,425	2,406,790
Forest Stand Improvement	Acres	314	1,077,341
Proper Harvest: Cutting	Acres	20,396	451,222
Range and Grass Seeding	Acres	1,210	45,750
Tree Planting and Seeding	Acres	8,467	240,439
Revegetation, Surface Mined Areas	Acres	46	1,684
Woodland Thinning and Release	Acres	18,260	673,822
Woodland Grazing Control	Acres	6,716	284,322
Recreation Area Development	Acres	116	28,808
Wildlife Habitat Development	Acres	1,388	19,744
Wildlife Ponds	No.	-	42

Works of Improvement Installed in Flood Prevention Projects
(PL-534)

Fiscal Year 1976

Item	Unit	Installed in 1976 (all funds)	Estimated Total Practices on Land as of 6/30/76
STRUCTURAL MEASURES:			
Access Road Construction	Miles	1.2	74
Channel Improvement	Miles	-	13.6
Channel Stabilization	Miles	7.8	71.3
Diversion Ditches	Lin. Ft.	-	4,558
Floodwater Retarding Structures	No.	1	3
Grade Stabilization Structures	No.	1	929
Streambank Stabilization	Miles	1	11.3
LAND TREATMENT MEASURES:			
Critical Area Stabilization by Tree Planting & Other Measures	Acres	31,831	327,503
Forest Road and Roadbank Stabilization	Miles	15.3	1,650.5
Area Treated	Acres	68	17,324.9
Forest Watershed Management Plans	No.	2,018	16,010
Area Included	Acres	59,533	1,344,488
Firebreaks and Fuelbreaks	Miles	5	3,163
Fire Roads and Trails	Miles	82.6	445.6
Fire Hazard Reduction	Acres	90	1,525.3
Fire Water Developments	No.	3	172
Fire Towers	No.	-	46
Heliports and Helispots	No.	6	453
Mobile Equipment	No.	-	117
Other Fire Improvements	No.	10	197
Permanent Radio Installations	No.	2	313
Proper Harvest Cutting	Acres	738	339,245
Forest Stand Improvement	Acres	-	660,114
Tree Planting and Seeding	Acres	1,551	458,740
Woodland Thinning and Release	Acres	2,429	421,559
Revegetation, Surface Mined Areas	Acres	192	6,408
Woodland Grazing Control	Acres	639	178,349
Woodland Owners Assisted	No.	1,922	66,472